



REPORT

ON THE HEALTH OF THE

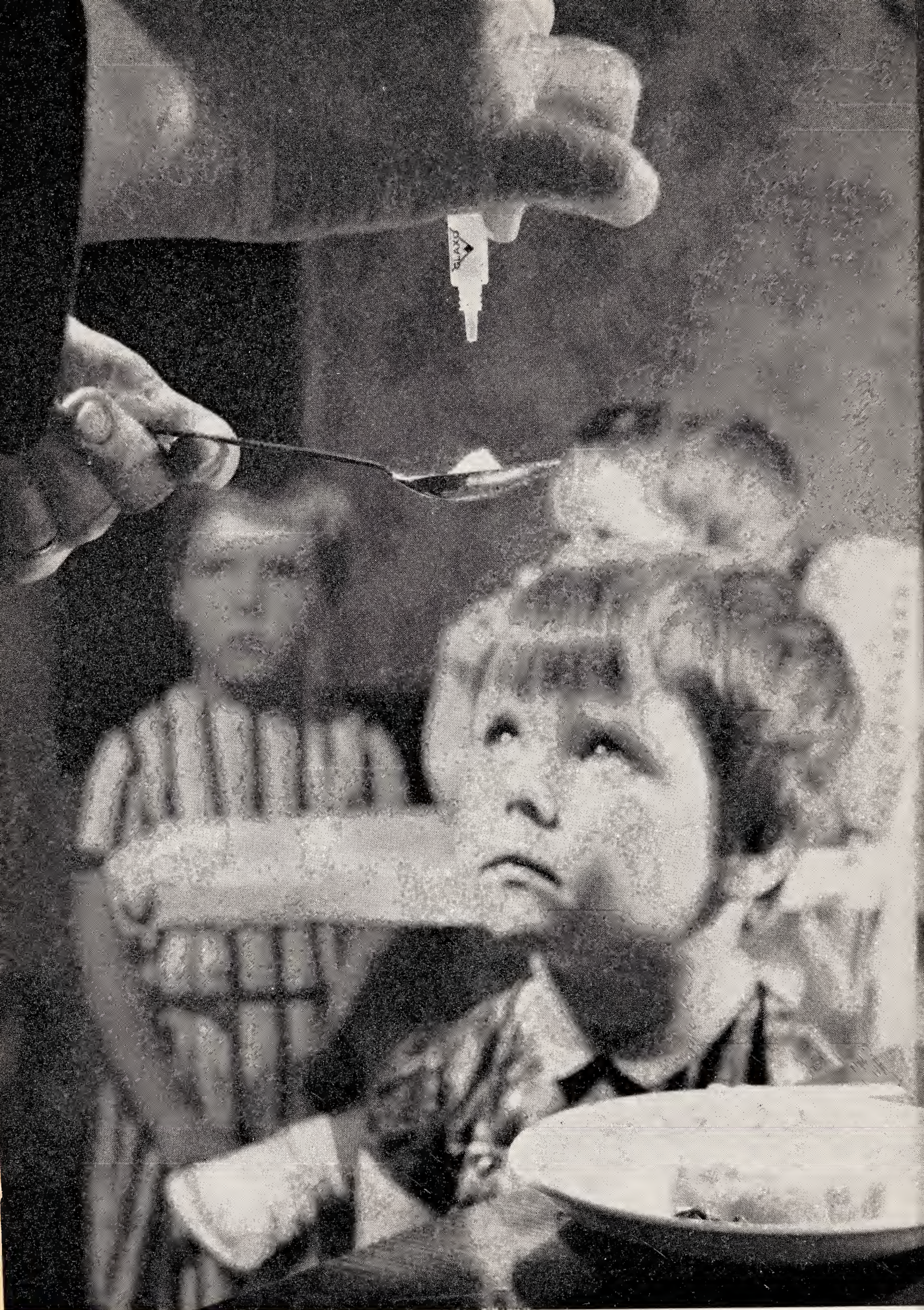
CITY OF LIVERPOOL

FOR

1964

BY THE

MEDICAL OFFICER OF HEALTH





REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

FOR THE

YEAR

1964

BY

ANDREW B. SEMPLE, V.R.D., M.D., D.P.H., Q.H.P.,

Medical Officer of Health



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b29737989>

CONTENTS

	Page
THE HEALTH COMMITTEE	vi
PREFACE	ix
VITAL STATISTICS	1
MATERNITY AND CHILD WELFARE	5
Midwifery Service	5
Health Visiting Service	10
Maternity and Child Welfare Clinics	14
Chiropody Service	16
Home Nursing Service	16
Day Nurseries	18
HOME HELP SERVICE	20
HEALTH EDUCATION	24
EPIDEMIOLOGY	25
IMMUNISATION AND VACCINATION	33
CONTROL OF RADIATION HAZARDS	36
TUBERCULOSIS	38
VENEREAL DISEASE	46
MENTAL HEALTH SERVICE	52
Community Care	54
Mental Health Review Tribunal	57
New Hall	66
Hostels	69
Hospital Patients	71
AMBULANCE SERVICE	73
OCCUPATIONAL THERAPY	76
WELFARE SERVICE	81
Residential Accommodation	81
Temporary Accommodation	83
Domiciliary Welfare Services	84
Welfare of Handicapped Persons	87
HOUSING POINTS SCHEME	93
MEDICAL EXAMINATIONS	97
ENVIRONMENTAL HEALTH CONTROL... ..	99
Housing and Slum Clearance	102
Shops Act	105
Offices, Shops and Railway Premises Act, 1963	107
Supervision of Food Supply	109
Meat Inspection	110
Food Hygiene	115
The Adulteration of Food and Drugs	116
Factories Inspection	119
Industrial Nuisances	120
Licensed Premises	121
Atmospheric Pollution	123
Rodent Control	125

CITY ANALYST...	...	...	...	...	...	...	...	129
DISINFECTION AND DISINFESTATION				...	...	...	...	136
Transport of the Handicapped	...	...	...	...	...	...	...	138
CIVIL DEFENCE	...	...	...	...	...	...	...	141
CREMATION	...	...	...	...	...	...	...	143
WATER SUPPLY	...	...	...	...	...	...	...	144
STATISTICAL SECTION...	...	...	...	...	...	...	...	145, <i>et. seq.</i>

STATISTICAL SECTION

	Page
VITAL STATISTICS	145
MATERNITY AND CHILD WELFARE	155
Midwifery Service	155
EPIDEMIOLOGY	159
Food Poisoning	159
IMMUNISATION AND VACCINATION	160
CONTROL OF RADIATION HAZARDS	164
TUBERCULOSIS	164
MENTAL HEALTH SERVICE	169
AMBULANCE SERVICE	172
WELFARE SERVICE	175
MEDICAL EXAMINATIONS	178
HOUSING POINTS SCHEME	179
ENVIRONMENTAL HEALTH CONTROL	179
Shops Inspection	179
Factories Act	181
Housing and Slum Clearance	182
Atmospheric Pollution	185
Rodent Control	187
Food Inspection	189
Meat Inspection	189
CITY ANALYST	190
Milk Samples	190
Water Supply	190

HEALTH COMMITTEE—1964/65

CHAIRMEN:

ALDERMAN WILLIAM McKEOWN
(From 20.5.64 to 18.2.65)

COUNCILLOR HENRY EVANS, J.P.
(From 19.2.65)

DEPUTY-CHAIRMEN:

COUNCILLOR HENRY EVANS, J.P.
(From 20.5.64 to 18.2.65)

ALDERMAN IAN ISIDORE LEVIN
(From 19.2.65)

ALDERMEN:

ALFRED NATHANIEL BATES	MICHAEL JOHN REPPION
ALEXANDER GRIFFIN, J.P.	JOHN SHEEHAN
JOSEPH MORGAN (resigned 1.7.64)	JOHN MATTHEW TAYLOR, J.P.
PETER JAMES O'HARE	(appointed 1.7.64)
(died 22.9.64)	FRANK WOOLFENDEN

COUNCILLORS:

NORMAN SELIG BARNETT	GEORGE GERALD MALONEY
ALBERT BROWN	FRANCIS JAMES McCONVILLE
CHARLES HENRY BROWNE	(appointed 1.7.64)
MARION BROWNE (Mrs.), M.B.E.	ALBERT MORROW, J.P.
FRANCIS JOSEPH BULLEN	JOHN PETER MOYSES
VINCENT BURKE	ERIC STANLEY NIXON
DANIEL CUMELLA	JOSEPH NORTON
GEORGE ERIC DELOOZE, J.P.	ROBERT PARRY
OWEN JOSEPH DOYLE	MARY JOSEPHINE POWELL (Mrs.)
FRANK GAIER (appointed 6.1.65)	ANDREW MCKIE REID, M.C., T.D.
PATRICK GRANNELL	LENNIE SANDERS (Mrs.)
FRANCIS GRUE	CYRIL TAYLOR
JAMES JOSEPH HASTINGS	STANLEY GEORGE THORNE

Representing the Executive Council:

D. E. LUMBY, ESQ., J.P.	W. J. TRISTRAM, ESQ., J.P.
-------------------------	----------------------------

Representing the Medical Profession:

S. B. LEVY, ESQ., V.R.D., M.R.C.S., L.R.C.P.

SENIOR DEPARTMENTAL STAFF

<i>Medical Officer of Health</i>	...	PROFESSOR ANDREW B. SEMPLE, V.R.D., M.D., D.P.H., Q.H.P.
<i>Deputy Medical Officer of Health</i>		J. B. MEREDITH DAVIES, M.D., D.P.H.
<i>Principal Medical Officer (Mental Health)</i>	... ..	T. L. BEGG, M.B., Ch.B., D.P.H.
<i>Principal Medical Officer (Maternity and Child Welfare)</i>		ESTHER M. E. RAMSAY, M.B., Ch.B., D.P.H.
<i>Principal Medical Officer (Epidemiology)</i>	... ..	C. F. W. FAIRFAX, M.B., B.S., D.P.H.
<i>Chief Welfare Officer</i>	... ..	H. THACKER, Dipl.P.A.
<i>Chief Public Health Inspector</i>	...	W. H. WATTLEWORTH
<i>City Analyst</i>	... ..	J. F. CLARK, M.Sc., D.I.C.
<i>Principal Assistant (Admin.)</i>	...	A. C. JAMES, Dipl.P.A.
<i>Chief Food Inspector</i>	... ..	A. D. H. JOHNSTONE
<i>Chief Ambulance Officer...</i>	...	A. GUINNEY
<i>Chief Disinfecting Officer</i>	...	R. C. SYMES

PREFACE

In presenting my 13th Annual Report as Medical Officer of Health to the City of Liverpool, I have changed its style. It has been shortened, divided into chapters and includes photographs illustrating important aspects of the work of the department for the first time.

The most important and significant change in the vital statistics for 1964 is that there has been a welcome reduction in the infant mortality rate from 26·1 to 21·7. This means that 72 more children lived to see their first birthday in Liverpool in 1964 than in 1963. Other encouraging reductions occurred in the perinatal mortality, maternal mortality and tuberculosis death rates. A depressing feature was a further rise of the deaths from cancer of the lung to an all-time high level of 527.

In the maternity services the trend towards (*a*) greater proportion of hospital deliveries, and (*b*) larger numbers of early discharges from hospital continued. The increase of the latter was dramatic—3,782 mothers and babies were discharged before the tenth day after confinement compared with 2,108 in the previous year. The problems created by this trend are serious, especially as, in many instances, the domiciliary services are not really designed to meet a need of this order.

It is satisfactory to record that the Midwives Part II training schemes have been launched successfully at Sefton General Hospital, Liverpool Maternity Hospital, Mill Road Maternity Hospital and Broadgreen Hospital.

The liaison between the health visiting staff and the general practitioners in Liverpool has steadily increased during the year.

It is interesting to note that the demand for child welfare clinics continues to rise in Liverpool—the number of children attending rose by 1,492 and the number of individual attendances by 4,684 and, at 103,705, topped the 100,000 mark for the first time. This finding is even more significant when it is remembered that the total population of the City continued to fall.

There was also an increase in the work done for the aged—the health visitors paid 6,054 such visits. In the work undertaken on patients discharged from hospitals, there was a rise to 5,156 visits—these visits are mainly made to check that the patient is following instructions which have been given to him or to report to the hospital on his condition.

These increases, which result in more effective patient care, are very encouraging, as they indicate that the importance of social aspects of diseases is being more widely accepted.

There has been a complete change in the last seven years in the pattern of district nursing visits. In 1957 roughly 75 per cent were made

for the purpose of giving an injection and only 25 per cent for nursing care. In 1964 only 42 per cent of visits were made to give injections while nursing care visits had risen to 57 per cent. This trend means, of course, that the time spent per visit has increased. Because of this, it is satisfactory to report the decision now taken by the City Council to give district nurses a car allowance.

1964 was a satisfactory year for the infectious diseases. A measles epidemic provided the only noteworthy episode.

The fall in pulmonary tuberculosis was considerable, 273 cases being notified compared with 391 in 1963. This reduction is considerably greater in proportion than the national average and is most encouraging. There seems little doubt that the great efforts of the mass X-ray campaign six years ago laid the foundation of this improvement.

The pattern of venereal disease in Liverpool shows a rising incidence that is disturbing. 1,569 cases of gonorrhoea in men were traced in the year compared with a figure of 1,317 in 1963 and 940 in 1959. The trend is that of a constantly rising incidence. Most age groups are involved—some of the greatest increases were in females aged 18 to 20 and males aged 21 to 30. There has also been a substantial increase in syphilis in males—96 infections being traced compared with an average incidence for 1959-63 of 54 a year.

The year has seen the opening of the first residential hostels for mentally disordered people at New Hall, Fazakerley. It is also satisfactory to report that the plans are now complete for the erection of a new sheltered workshop at Fazakerley, which will go a long way to providing a satisfactory industrial unit for the mentally handicapped. The report includes an assessment of cases that have been dealt with by the Mental Health Review Tribunal, which shows that considerable problems have been found in a minority of cases discharged from mental hospitals. This, of course, is not evidence that these discharges should not have been undertaken but it does emphasise the complicated and difficult problems that can often exist in these cases.

The numbers of patients moved by ambulance continues to rise. The Cadet Training Scheme which was introduced in 1964 and which was the first of its kind to be introduced in the country, has proved a great success. It has attracted a great deal of attention from other authorities. Under this scheme young men are trained for over a year in a Cadet Training School and experience has already shown that this is a far better method of recruiting staff.

During the year seven cadets successfully completed the course out of the ten who were originally selected for training.

In the field of occupational therapy there has again been difficulty

in regard to recruitment of staff although the establishment has been increased to fourteen to provide for the staffing of the new unit at Longmoor Lane. The arrangement whereby a final year occupational therapy student from a local training college has been two months in the department has proved a success and it is hoped this will be repeated in future years. Staff have been extremely busy in supervising adaptations to the houses of severely handicapped persons. With the establishment of much better transport facilities towards the end of the year, it was possible to expand the number of people attending the rehabilitation units.

For the first time it is possible to report on the experience of a full year with the new transport service for the handicapped. Up to 180 people per day have been conveyed to and from training centres by the fifteen vehicles available, as well as carrying people to rehabilitation centres, to voluntary organisation centres and for other social and recreational activities. Towards the end of the year it became obvious that an urgent expansion of the service was necessary and a report was accepted by the City Council to increase the fleet to 31 vehicles. When these vehicles are provided the fleet will consist of thirteen passenger carriage vehicles and eighteen lift vehicles. There is no doubt that this section must now be one of the most modern in the whole country and is contributing substantially to the happiness, encouragement and training of all groups of handicapped both in the local authority and voluntary services.

Plans were completed by the end of the year in regard to the building of the first of twenty new homes for the elderly in the City, over the next five-year period.

The new home at Lathbury House, for 52 old people, was completed in the Autumn and was in full operation by the end of the year.

The holiday home at Southport has again proved very popular and 495 elderly people were able to spend a holiday there.

The Welfare services for the handicapped have continued along similar lines as in previous years. The trend towards more and more blind people being employed in sighted industry compared with those in sheltered industry has continued and it is most satisfactory to point out that there are now 114 blind people working in open industry compared with 76 in sheltered employment.

There has been a steady increase in the demand for housing priority on medical grounds and, during the year, no fewer than 8,575 general medical cases applied for assistance in rehousing. Of these, 789 general medical cases were awarded points and 126 cases were recommended to the Director of Housing for special priority and 90 of these had been accommodated by the end of the year. This is, of course, in

addition to the number of people helped for tuberculosis. During the year 128 such cases were rehoused out of 200 recommended.

The work of the medical examination section of the department has continued to increase, there being a total of 3,067 examinations carried out during the year.

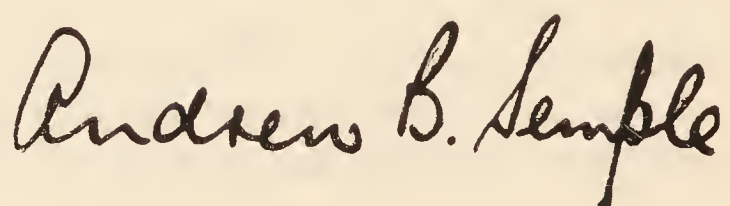
In the environmental health work of the department shortage of qualified public health inspectors has continued to provide problems. The training courses for student inspectors have continued satisfactorily but there still has been a drift of trained inspectors from the area to other authorities. Full details are given in the report of the work of this section including the launching of the Offices, Shops and Railway Premises Act, 1963. The control and supervision of food supplies at the abattoir, markets and retail premises has continued throughout the year, though no specially serious problems have been met. Three further smoke control areas became operative during the year and two more orders have been submitted to the Ministry of Housing and Local Government for confirmation. Complaints of smoke emissions from chimneys serving industrial boiler plants have become less during the year and very few were received.

One of the most satisfactory changes in the field of atmospheric pollution during the year was the conversion of Clarence Dock Power Station from coal-burning to oil-firing equipment. This has considerably reduced the emission of grit and dust although smut emission is still a problem from this plant.

Once again I wish to record my gratitude and appreciation to all the staff of the Health Department for their hard work, loyalty and support during the year. I also wish to acknowledge the help given by the chief officers and members of other Corporation Departments. I would also like to record my sincere appreciation to the Chairmen of the Health Committee during 1964, Alderman W. McKeown and Councillor Harry Evans, J.P., and their Deputy Chairmen. I am also pleased to thank the members of the Health Committee for the kindness and courtesy with which they have considered the reports and recommendations made to them during the year.

I am,

Your obedient servant,

A handwritten signature in dark ink, reading "Andrew B. Semple". The signature is written in a cursive style with a large, prominent 'A' and 'S'.

Medical Officer of Health.

VITAL STATISTICS

	1963	1964
Area (land and inland water) - acres	27,818	27,818
Population (Estimated by Registrar-General)	739,740	729,140
Deaths (all causes)	8,908	8,131
Death rate per 1,000 population	12.0	11.2
Live Births	15,775	15,625
Live Birth rate per 1,000 population	21.3	21.4
Percentage of illegitimate live births	6.9	7.7
Stillbirths	351	283
Stillbirth rate per 1,000 total (live and still) births	21.8	17.8
Total Births	16,126	15,908
Infant Deaths (under one year)	412	339
Infant Mortality rate per 1,000 live births	26.1	21.7
" " " " 1,000 legitimate births	26.0	21.9
" " " " 1,000 Illegitimate births	28.3	19.2
Neo-Natal Mortality rate (First four weeks) per 1,000 related live births	16.4	13.1
Early Neo-Natal Mortality (first Week) per 1,000 related live births ...	13.8	11.1
Perinatal Mortality rate (stillbirths + deaths during first week) per 1,000 total live and stillbirths	35.2	28.7
Maternal Deaths	4	3
Maternal Mortality rate per 1,000 total births	0.248	0.189
Deaths from:—Pulmonary Tuberculosis	54	38
Death rate	0.073	0.052
Non-pulmonary Tuberculosis	4	3
Death rate	0.005	0.004
Respiratory Diseases	1,641	1,368
Death rate	2.2	1.9
Cancer (all forms)	1,578	1,720
Death rate	2.1	2.4

BIRTHS

During the year, 15,625 live births were registered within the City, which represents a birth rate of 21.4 per thousand of the estimated mid-year population. This figure showed very little change compared with 1963. Illegitimate live births were 7.7 per cent of the total live births and numbered 1,199. This figure was a further increase in the percentage of illegitimate births, which is higher than it has been for eighteen years. The birth rate within the City continued to be higher than the average for England and Wales, which for the year 1964 was 18.4 per thousand.

STILLBIRTHS

The 283 stillbirths registered in the City during the year represents a stillbirth rate per thousand total (live and stillbirths) of 17.8. This is the lowest figure ever recorded for the City and compares very favourably with the figure for 1963 which was 21.8. The stillbirth rate among illegitimate babies was 20.4 and among legitimate babies was 17.6 per thousand.

MORTALITY

There were 8,131 deaths registered within the City during the year, 4,136 males and 3,995 females. This gives a general death rate of 11·2 per thousand as compared with a death rate of 12·0 for the preceding year. The number of deaths from cancer of the lung was 527. Deaths from tuberculosis during the year were 41 as compared with 58 in the previous year. The trends of mortality of certain specified diseases are given in the tables in the statistical appendix.

INFANT MORTALITY

The infant mortality rate again fell substantially during the year to 21·7 per thousand live births as compared with 26·1 for the previous year. A total number of 339 infant deaths occurred, of which 23 were illegitimate children. This represents an illegitimate infant mortality rate of 19·2 per thousand and a legitimate mortality rate of 21·9 per thousand and is the first time for a considerable number of years that the illegitimate infant mortality rate has been less than the legitimate mortality rate. Both the neo-natal mortality rate (first four weeks) and the early neo-natal mortality rate (first week) showed considerable reductions on the previous year from 16·4 to 13·1 and 13·8 to 11·1 per thousand related live births respectively. These reductions in all types of infant mortality rates are most gratifying. The principal causes of infant mortality are represented in the diagram below.

PERINATAL MORTALITY

This rate, which is the number of stillbirths and the number of deaths in infants under one week per thousand births is being increasingly used in statistics and it represents very fairly the hazards of childbirth. During 1964 the rate was 28·7 compared with 35·2 in 1963 and this represents a considerable reduction on the figure for that year.

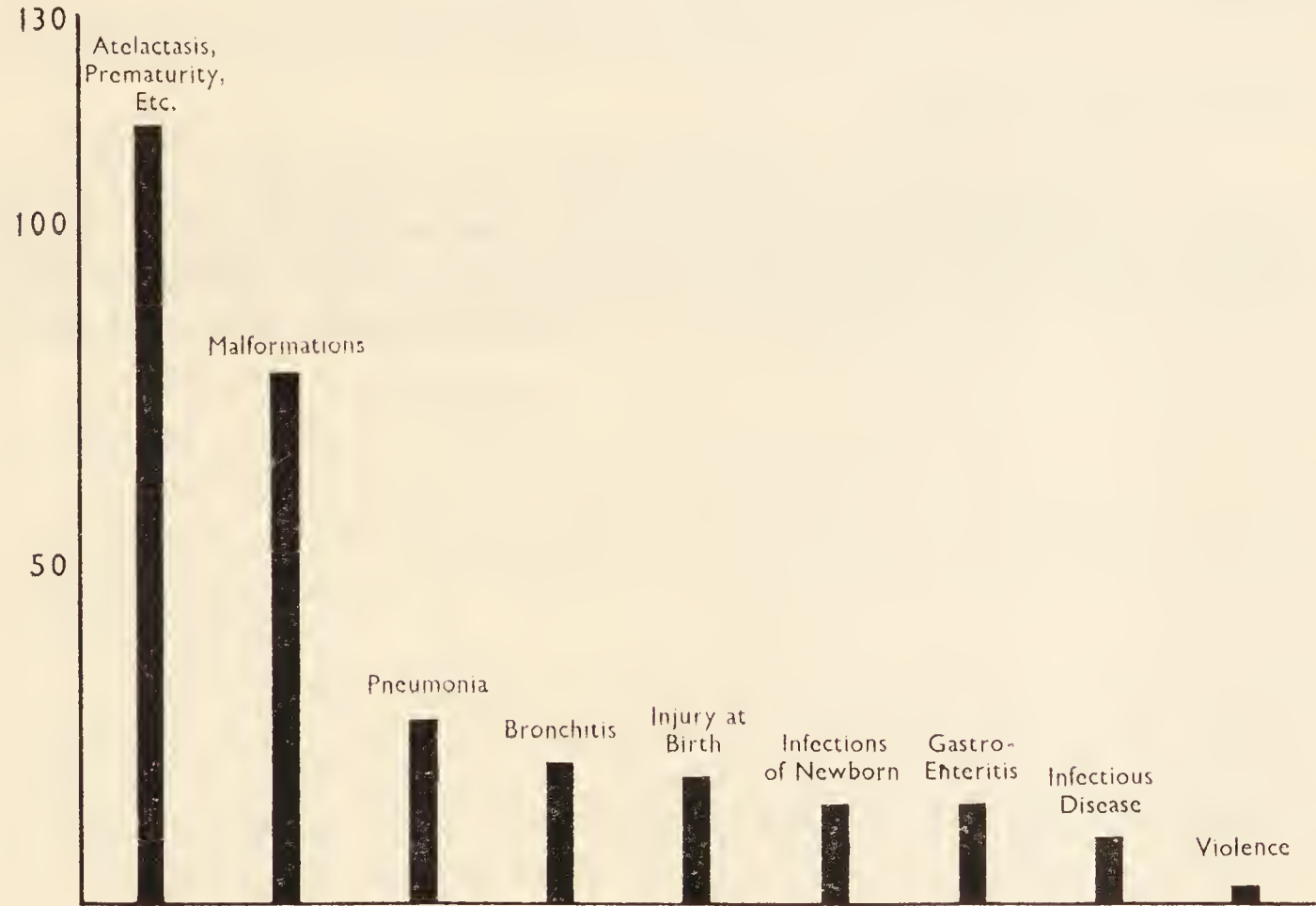
CHART SHOWING INFANT MORTALITY RATE FOR A NUMBER
OF THE LARGER AUTHORITIES FOR THE YEAR 1964

Rate per 1,000
births



Total
Deaths

PRINCIPAL CAUSES OF INFANT MORTALITY—1964



CHILD MORTALITY

The various causes of child mortality both in total and for specific diseases are given in the table illustrated below.

YEARLY AVERAGE NUMBER OF DEATHS IN SUCCESSIVE QUINQUENNIA, 1920-1964

Year	Deaths under 1 year of age	DEATHS, 1 YEAR AND UNDER 5 YEARS OF AGE							
		Total, 1 year and under 5 years of age	General Diseases (including T.B.).	Respiratory Diseases	Digestive Diseases	Measles	Whooping Cough	Diphtheria	Scarlet Fever
						Included in General Diseases			
1920-24	2,278	1,349	557	513	121	202	109	62	
1925-29	1,879	1,252	564	461	121	227	118	61	
1930-34	1,601	890	456	278	63	200	72	79	
1935-39	1,283	487	243	147	30	79	46	58	
1940-44	1,140	366	160	94	17	27	23	45	
1945-49	1,100	168	67	36	13	8	15	9	
1950-54	553	100	26	22	5	2	4	—	
1955-59	432	57	7	12	5	1	—	—	
1960-64	426	52	3	11	3	1	1	—	

DEATHS FROM CANCER

The total number of deaths from cancer during the year rose to 1,720 as compared with 1,573 in 1963. This completely offsets the fall in that year as the figure for 1962 was 1,719. The number of deaths from cancer of the respiratory tract increased slightly from 483 to 527.

MATERNITY AND CHILD WELFARE

During 1964 a total number of 19,869 live and stillbirths were notified.

The register of children born "at risk" was continued, and those developing an abnormality were transferred to a register of handicapped children. The handicapped children received extra attention, and may at a later date require special schooling. The number of children on the "at risk" register at the end of the year was 3,471.

Building commenced on a maternity and child welfare clinic in Netherfield Road, and it is hoped that this will be completed in 1965.

MIDWIFERY SERVICE

During the year, 377 midwives notified their intention to practise midwifery in the City, an increase of 34 over 1963. At the end of the year, 304 remained in practice, seventeen more than at the end of last year.

The midwifery staff at the end of the year consisted of the non-medical supervisor, two assistant supervisors, one training superintendent, one tutor and 59 full-time midwives, including three who specialised in premature baby care. Three part-time midwives were appointed to nurse mothers and babies discharged early from hospital, and a fourth was to commence duties on 1st January, 1965.

Twelve midwives left the staff during the year and, as during the last two years the number of home confinements has decreased by 1,000, only four midwives were appointed in 1964.

Thirty-eight midwives occupied 35 corporation houses or flats. Twelve of these midwives were in furnished accommodation.

Thirty-five full-time midwives were car owners and drivers, fifteen were cyclists and nine used public transport. Two of the part-time midwives used their cars and one used a motor scooter.

Statutory post-graduate courses were attended by thirteen midwives and one of the assistant non-medical supervisors.

The total number of home confinements was 3,648, which was a decrease of 192 from last year. The midwives paid 58,662 visits to their booked cases, and 10,793 visits to mothers and babies discharged from hospital.

There was a change in the distribution of the place of birth compared with 1963; 75.5 per cent of the total births took place in hospital, 22.7 per cent took place at home, and 1.8 per cent took place in nursing homes. The comparable figures for 1963 were 72.9 per cent in hospital, 25 per cent at home and 2.1 per cent in nursing homes.

The increase in the number of births in hospital without an increase in the number of available beds, led to an increase in the number of patients who were discharged early in the puerperium; 3,782 mothers and babies were discharged before the tenth day after confinement and were visited by midwives. This is an increase of 1,674 over 1963. Seven hundred premature babies were also discharged from hospital and cared for by three specially trained midwives. The table below shows how the number of patients discharged between the second and seventh days after confinement has increased since 1963.

			2nd day	3rd day	4th day	5th day	6th day	7th day
1963	...	...	116	349	293	231	347	524
1964	...	...	191	480	304	273	518	1,308

A scheme for discharging patients from hospital 48 hours after delivery started during the year. The patient was visited at home to ensure that she could be cared for satisfactorily if she left hospital 48 hours after her confinement as suitably heated accommodation, and another person in the home during the day and night were essential. The hospital was then informed whether the patient could be discharged 48 hours after her confinement, or if she needed longer care in hospital. The medical requirements of the patient and baby were considered by the hospital before any patient was discharged. These patients were then nursed by domiciliary midwives.

To initiate and run this scheme, four part-time midwives were employed, and three midwives who were nearing retiring age volunteered to assist. This type of work is not satisfying to midwives, who are trained to conduct deliveries. The number of home assessment visits increased during the year.

Ante-natal Care

Ante-natal care of the mother was carried out at 32 general practitioners' clinics, at local authority clinics, where 21 were run by midwives, and also by visits to the patients' homes.

Midwives attended 1,580 sessions at general practitioners' surgeries, an increase of 302 over last year. More general practitioners would like midwives to go to their clinics, but as there are six times as many doctors practising midwifery as there are midwives, this is not possible.

Midwives attended 395 sessions at local authority medical officers' clinics, a decrease of 132, and midwives' own clinics were staffed by them on 2,632 occasions. Visits to patients' homes numbered 23,374.

Gas and air was administered to 1,758 mothers as against 2,269 last year. In contrast, trilene was administered to 1,078 as against 559 in 1963. The number of patients who received pethidine was 2,430.

The midwives called in medical aid for 1,040 cases for different abnormalities. In 943 cases a doctor had already been booked for maternity medical service.

The emergency obstetric flying squad was called out 38 times to the patients' homes. Blood transfusion was given in nineteen cases, nineteen patients were transferred to hospital and nineteen were able to remain at home. Reasons were as follows:—

Retained placenta	...	...	...	17
Post partum haemorrhage	...	...	...	15
Ante partum haemorrhage	...	...	...	1
Twin delivery...	...	...	...	2
Cord prolapse...	...	...	...	1
Prolonged labour	...	...	...	1
Premature labour	...	...	...	1

Midwives were called to emergencies by the Ambulance Service on 35 occasions. In 28 cases the mothers were booked for hospital and transferred there after delivery. In two cases premature babies were born and transferred to hospital.

Consultants were called to midwives' cases six times, once to a mother for post-maturity and five times to babies, twice for cyanosis, once for asphyxia livida, once for difficulty in breathing, and once for an Erb's paralysis.

During 1964 there were 310 cases of notifiable puerperal pyrexia, of these, 292 occurred in hospitals and eighteen in the patients' homes. Details are given in the appendix.

The number of trilene inhalers for analgesia was increased to twenty. An increasing number of mothers preferred trilene to gas and air analgesia.

A scheme to provide pre-packed sterile equipment for the midwives was begun. This service was first used by the pupil midwives, and then by the teaching midwives. The pupils were issued with two sets of equipment, taught how to clean and pack them, and the autoclaving was undertaken by the hospitals. The equipment for the midwives was packed in the midwifery office and autoclaved by the local authority staff. It is hoped to extend this service to all midwives in 1965.

Training

The training scheme was extended and included pupils from Sefton General Hospital, Liverpool Maternity Hospital, Mill Road Maternity Hospital and, since September, Broadgreen Hospital.

An average of 25 pupil midwives every three months worked under the supervision of their district teaching midwives and tutorials were given by the tutor and the training superintendent. Seventy-six pupils took the course and 73 qualified as midwives, three of whom joined the staff. Thirty were still in training at the end of the year. There were 36 midwives approved as district teachers.

During the year, 53 student nurses who were doing their obstetric training at Sefton General Hospital, Liverpool Maternity Hospital or Broadgreen Hospital, spent a day on the district, visiting with a midwife in the morning and attending a child welfare clinic in the afternoon.

Premature Babies

Of the 45 premature babies born at home, 42 were able to remain at home, and three were transferred to hospital, while 607 were born in hospital and later discharged to the care of the specially trained midwives.

No twins were born at home, but among those babies discharged from hospital there were 37 sets of twins and two sets of triplets.

The midwives caring for premature babies made 743 visits to home deliveries and 3,412 to babies discharged from hospital. Each of the pupil midwives in turn spent a morning with one of the premature baby team.

The midwives also paid 192 visits to babies' homes before they were discharged, to ascertain if the conditions were suitable and ready to receive a small baby.

Equipment was loaned as follows :

Cots and mattresses...	...	...	...	2
Blankets	...	...	...	5
Hot water bottles and covers			...	39
Gowns	...	...	...	7
Vests	...	...	...	4
Scales (weighing)	...	...	...	1

Maternal Deaths

There were five maternal deaths in Liverpool in 1964. Three of these were true maternal deaths from causes associated with pregnancy, the other two were coincidental.

The first death occurred in a women of 38 years in her third pregnancy. This patient was attended regularly by her general practitioner from the fifteenth week of pregnancy, her first visit to him, until she was admitted to hospital. The pregnancy was normal until the 38th week, when her blood pressure rose to 150/90. At this time the patient refused to attend a hospital ante-natal clinic, although advised to do so by her doctor. After a week's treatment at home, her blood



A Day Nursery

Health Visitor at Hospital Geriatric Clinic





Domiciliary Midwifery



8 Bathing Baby



Midwives Clinic



Premature Baby
at Home

pressure fell to 140/90, and there was a trace of albuminuria. The patient developed abdominal pain four days later, and called her general practitioner 24 hours after its commencement. The patient was immediately admitted to hospital as an emergency case with fulminating toxæmia. In hospital, labour was induced and a stillborn child was delivered. After delivery, her general condition deteriorated, she had eclamptic fits and died three days after her admission to hospital. Death was due to eclampsia, cerebral haemorrhage and necrosis of the kidneys.

The second death was due to toxæmia and shock following an accidentally induced abortion in a woman of 31 years in her eighth pregnancy. This patient was treated early in pregnancy at hospital, when a pessary was inserted. When she was sixteen weeks' pregnant, she developed what appeared to be a straightforward infection in the ear for which she was treated. However, the following day she collapsed with shock and symptoms of abortion. The obstetrical flying squad was called by her general practitioner, and after treatment she was removed to hospital. Twenty-five minutes after admission, this patient died. It appeared that by removing the pessary, an accidental abortion had been produced, and the patient died from shock and toxæmia. She had refused to reattend the hospital out-patient department after the first visit which she made early in pregnancy.

The third maternal death occurred in a woman of 33 years in her ninth pregnancy. This patient was attended regularly by her general practitioner throughout her pregnancy. At first she refused to attend hospital, but after much persuasion by her general practitioner and her midwife, she visited hospital and was booked for confinement there. The patient was admitted in labour, which progressed normally until six hours after her admission, when she suddenly collapsed and died. A live female child was delivered five minutes after the mother's death. At post-mortem the cause of death was found to be a pulmonary amniotic embolus.

The coincidental deaths included a woman of 30 years who died when 34 weeks' pregnant in her third pregnancy. This patient attended hospital and her general practitioner regularly from the thirteenth week of pregnancy. The pregnancy was not entirely normal and the patient spent a week in hospital. When she was 34 weeks pregnant, she was admitted to hospital in labour and delivered of a live male child. Shortly after delivery she collapsed and a pheochromocytoma, a tumour of the adrenal glands, was suspected. Despite vigorous treatment this patient died 22 hours after the birth of her child. The diagnosis of a pheochromocytoma was confirmed at post-mortem.

The remaining death occurred in a 35-year-old woman in her third pregnancy. When she was 35 weeks pregnant, this patient developed a severe pneumococcal meningitis from which she died.

HEALTH VISITING SERVICE

During 1964, the contact between the health visiting staff and the general practitioners was increased. There was no direct attachment of health visitors to practices in Liverpool, but more health visitors visited surgeries to discuss problems with the doctors concerned, and undertook visits at their request.

In March, the general practitioners' wing of the Toxteth Health Centre opened, and efforts were made to increase the co-operation between the local authority services and the general practitioners. The senior health visitor at the centre paid daily visits to discuss visits by other health visitors, social welfare visitors, and to arrange for those services required by some patients.

At the end of the year the staff consisted of:—

- 1 superintendent
- 1 deputy superintendent
- 1 assistant superintendent
- 82 health visitors
- 1 state registered nurse, full time.
- 11 state registered nurses, part time.

Training

The training, which included theoretical and practical work, covers an academic year. The students were sponsored by Liverpool county borough and by other local authorities in England and Wales, and returned to these authorities to work after qualification.

A health visitor tutor was responsible for the theory and the superintendent health visitor and her staff were responsible for the practical training. 35 students entered for the examination of the Royal Society of Health, and 30 were successful on the first occasion.

Ante-natal Care

Five of the City's maternity hospitals continued to notify the health department of patients discharged from their ante-natal wards and of those absenting themselves from ante-natal clinics. The health visitors paid over 3,000 visits to these women to encourage them to attend the clinic, and to ensure that they received any social help which they required.

Six health visitors visited ante-natal clinics in hospital to deal with social problems and to inform the patients of the services available to them. Two health visitors were members of a team at the Liverpool Maternity Hospital and Walton Hospital and spoke once a month to a group of mothers and fathers. Two other health visitors were in attendance at paediatric consultant clinics.

Care of Children

During the year, 70,169 children under the age of five years were visited at least once, and altogether 196,959 visits of a routine or special nature were made to their homes. These visits were made to advise parents on the best means of promoting their own health and welfare, and that of their families. Advice was given on household management, home-making and parentcraft.

The health visitors continued to keep a careful watch for any deviations from the normal progress of a child, and where necessary, took steps to see that parents sought advice.

Special attention was given to the exclusion of phenylketonuria which produces a type of mental subnormality, and tests were made on newly-born babies when they were visited, between the tenth and fourteenth day; and again between the fourth and sixth week.

During 1964, information regarding a new test to detect this condition was collected in co-operation with a paediatrician from Alder Hey Hospital and 6,000 of these tests were carried out between July and the end of December. Return visits were made to some families at the request of the hospital and further tests performed.

The enterovirus survey, which was started in 1962, has now become an established part of the health visitors' work. Each week, two or three infants were chosen at random from the health visitors' records, and the parents visited to explain to them the purpose of the survey, and to elicit their co-operation. Having agreed to co-operate, the parents were asked to collect a faecal specimen from their infant, for which a special container was supplied and this was collected by the public health inspector. This work involved a total of 367 visits.

Problem Families

One thousand six hundred visits were made to families with a social problem. To assist these families, close co-operation with other organisations was necessary and altogether 2,027 communications were made during the year with the following:—

Hospital Medical Social Workers
Children's Department
N.S.P.C.C.
Education Welfare Department
National Assistant Board
Mental Health Service
Probation Officers
Moral Welfare Societies
General Practitioners
Health Inspectors

Four families were referred to Brentwood Rehabilitation Centre for periods of not less than eight weeks. Only the mothers and their children attended this centre, but during the year discussions took place between representatives of voluntary and statutory bodies and the centre organisers, and in future years husbands may be included in this type of rehabilitation.

There is still a shortage of convalescent accommodation for mothers together with their children. Two mothers with children, and 26 mothers unaccompanied by their children, went to St. Winifred's Hospice at Holywell. Two mothers went to the Lear Home of Recovery in West Kirby and five mothers with children went to the union of Catholic Mothers' Home in Blackpool. The period of convalescence was two weeks in each case. By arrangement with the Child Welfare Association, 303 children were sent for convalescent care to homes run by voluntary societies.

Children referred to the School Health Department for special examinations numbered 491, classified as follows:—

Mental assessment	...	...	...	36
Physical assessment	...	...	...	22
Hearing tests	...	...	...	13
Educational tests	...	...	...	11
Speech defects	...	...	...	12
Eye defects	...	...	...	240
Orthopaedic defects	...	...	...	157

In all cases where training was necessary, the health visitor continued to encourage the parents to co-operate, and visited training centres to supervise the health and hygiene of the children attending.

Care of Aged

Six thousand and fifty-four home visits were paid to 1,800 men and women over the age of 65 years. Many of these people came to the notice of the health visitor during her visits to families and she was asked to assist them.

Two health visitors continued to visit geriatric units, thus providing valuable information to the hospital physicians regarding the home conditions and needs of their patients. If the patient was not admitted to hospital, the health visitor was responsible for ensuring that the necessary care was available in the home.

The department was particularly grateful to the matron of the Lear Home of Recovery at West Kirby, who because of her sympathy and understanding, dealt kindly with old people who went away for a period of convalescence. Others went to Llandudno and Harrogate and all appeared to have benefited greatly from their two weeks in new surroundings.

Vaccination and Immunisation

There was a great increase in the number of children vaccinated against smallpox during the year, 2,019 successful primary vaccinations being performed, compared with 493 in 1963.

The total number of children immunised against poliomyelitis was low at the beginning of the year, and to assist the health visitor to remedy this situation, state registered nurses were appointed to work as part-time assistants undertaking oral vaccination against poliomyelitis. As a result of this, 24,064 doses of vaccine were given at the clinics compared with 12,247 in 1963 and 3,000 doses were given in the home. There was an increase of 2,894 in the number of injections given at clinics over the number in 1963, when 17,117 were given.

Other Specialised Work of Health Visitors

The volume of work with diabetic patients increased considerably as the health visitor concerned was visiting three of the general hospitals. One thousand two hundred home visits were paid and the health visitor attended the hospital clinics each week to confer with the consultant. As patients became stabilised, the routine visiting was undertaken by other health visitors.

A health visitor continued to attend the consultant neurologist's clinics at Walton Hospital and visited at home all patients requested by him, and 1,791 of these visits were paid by her to 500 patients. Close co-operation was maintained with the rehabilitation officer of the Ministry of Labour.

Visits to patients discharged from hospitals, other than diabetic and neurological, numbered 5,156, an increase of 2,000 on the 1963 figure. These visits were paid to ensure that the patient was following any instructions which had been given to him and a report was provided for the hospital regarding his condition.

Eight hundred visits were made by the health visitors to ensure that patients were making full use of home nursing equipment.

The following is a summary of the work of the nurse assisting in the follow-up of women and children suffering from venereal disease:—

Number of cases written to...	...	...	...	...	...	274
Numbers of letters despatched	...	...	...	...	...	435
Number of cases reporting after receipt of letter...	...	...	...	...	...	135
Number of letters returned (dead letter office)	...	...	...	...	...	21
					Mothers	Babies
Number of cases visited	...	...	...	...	208	10
Number of visits made	...	...	...	...	781	43
Number of cases reporting after visits	...	...	...	...	135	6
Number of cases promising, but failing to attend	...	...	...	...	11	3
Number of cases removed or not known	...	...	...	...	38	—
Number of cases no contact made...	...	...	...	...	10	1
Number of cases refused to attend...	...	...	...	...	13	—
Number of cases transferred out	...	...	...	...	1	—

The success of this work can only be attributed to the diligent work of the visitor, often under very trying circumstances.

MATERNITY AND CHILD WELFARE CLINICS

The number of centres operating throughout the year remained at 27, but in April, five medical ante-natal sessions were replaced by midwives' sessions. Eleven ante-natal clinics were then staffed by local authority medical officers. The number of child welfare sessions was 62 per week.

One thousand six hundred and fifty-five mothers attended for ante-natal and post-natal examinations, making a total of 3,331 visits, while 1,034 women were referred by their doctor for blood tests only and from these, 2,648 separate tests were made. The number of mothercraft classes and midwives' sessions per week remained the same as last year—eighteen and twenty respectively.

The number of children, under five years, who attended the infant clinics increased by 1,492; 18,573 children made 103,705 visits as compared with 17,081 children who made 99,021 visits in 1963.

Eighteen mothercraft and relaxation classes were held each week in different parts of the City, and continued to be well attended. The classes were usually of two hours' duration and talks were given by the health visitors on such subjects as hygiene and diet during pregnancy, infant management, preparation for breast feeding, development of the foetus, and mechanism of labour, with a demonstration of the gas and air machine.

Following each talk the mothers were taught simple relaxation exercises to help them during the different stages of labour.

One thousand one hundred and forty-one mothers attended these classes, 974 of whom were recruited from the hospital ante-natal clinics. The remainder were invited by the health visitors and midwives. The attendances made by these mothers numbered 5,151.

Clinic Attendances

	1963	1964
Total number of centres at which ante-natal clinics were held ...	15	10
Number of clinic sessions held per week (medical) ...	16	11
Number of cases attending ante-natal clinics (doctors' sessions) ...	1,899	1,691

CHIROPODY SERVICE

During 1964, the chiropody service continued to expand. Additional sessions were opened, including one in an old persons' hostel. It was the first time that this particular type of session had been provided, as until this year there had been a shortage of qualified chiropodists working for local authority schemes.

Free chiropody was available to all women over 60 years of age, and men over 65 years. Expectant mothers, diabetic patients and badly handicapped persons were also treated. During 1964, 38 expectant mothers and 90 disabled persons were treated.

The total number of chiropody treatments given during the year was 28,591, 11,854 at the Central Foot Clinic, 15,042 at district clinics, and 1,695 at home. Transport was provided for 713 frail and crippled persons who could leave their homes.

At the end of the year, one full-time and 25 part-time chiropodists were conducting 99 sessions weekly, the full-time chiropodist and one other were also undertaking the domiciliary visits.

HOME NURSING SERVICE

During 1964 this service provided nursing care for all types of patients who were ill in their own homes. The nursing and assistance given to relatives enabled many people to remain in their homes who would otherwise have had to enter a hospital. This was important for the morale of the sick person, and also reduced the pressure on the limited number of hospital beds.

Nursing visits were made between the hours of 8.30 a.m. and 1.30 p.m., 3.00 p.m. and 6.30 p.m., and, in addition, an emergency staff was on duty each evening from 8.00 p.m. until 10.30 p.m.

There was an increase in the amount of work, 1,112 more patients received 35,888 more visits than in the previous year. However, the number of requests for late night calls decreased and 500 fewer of these calls were paid than in 1963.

Since 1957 there has been a gradual change in the pattern of the nursing care required. In 1957, a large number of visits was paid to administer injections only, but in 1964 most of the visits were to patients requiring general nursing care. This alteration is shown in the table.

		% of cases injections only	% of cases requiring nursing care
1957	...	75	25
1961	...	48·8	51·2
1964	...	42·7	57·3

More patients over 65 years of age were nursed during 1964 than in 1963; 215 more patients received 12,588 more visits. The total number of such patients was 5,600, and 194,190 visits were paid to them. These visits constituted 51·4 per cent of the whole work of the service.

In comparison with these figures, there were fewer visits paid to children under five years of age than in 1963; 138 fewer visits were paid to 94 fewer children.

Treatments were given at three centres to patients who attended. In March, a district nurse began working in the newly opened general practitioners wing at the Toxteth Health Centre. This clinic provided treatment for patients referred from the six general practitioners using the centre, and 1,150 patients received 6,663 treatments during surgery hours at the health centre. This scheme worked well, and was greatly appreciated by the patients and doctors. At the other centres, 333 patients received 6,269 treatments.

During 1964, 28 nurses including two male nurses, were trained as Queens Nursing Sisters as follows:—

- 23 trained for Liverpool staff
- 1 trained as an independent student
- 1 trained for Shropshire C.C.
- 1 trained for Merionethshire C.C.
- 1 trained for Caernarvonshire C.C.
- 1 trained for Bootle C.B.C.

Thirty-five students (an increase of six over 1963) from other authorities attended the three-week lecture blocks, and students from St. Helens and Wallasey also attended the weekly study day for theoretical instruction.

During the year, the first ten-week course of instruction for state enrolled nurses was arranged. Eighteen nurses attended the course, which was of great benefit to them and to the service. Two study days were held for bathing attendants, and these assisted them in their work, as they have no formal training. The district nurses also attended a study day arranged by the department. One group visited Fazakerley Hospital and another group attended the School of Hygiene in Mount Pleasant.

During the year, 392 student nurses, post-registration students, hospital sisters and tutors, accompanied the district nurses on their rounds. The opportunity thus afforded gave the visiting nurses an insight into the social background of the patients and the scope of the domiciliary services.

Twenty-three lectures were given in the hospitals and lectures

were also given to the administrative students at the William Rathbone Staff College.

The special laundry service has continued to be an invaluable aid to patients nursed at home. During 1964, 321 patients availed themselves of this service, an increase of 51 since 1963.

The supply of pads for use by incontinent patients increased during 1964 and 46,500 pads were used in the year, compared with 18,700 in 1963. The majority of the patients using this service were nursed by the district nurse, but by the end of the year an increasing number of patients nursed by relatives were applying for a supply. In smokeless zones waterproof bags were provided for dressings of all types, and they were then placed in refuse bins. This method of disposal proved satisfactory in 1964.

Home Nursing Equipment

The demand for this service increased considerably during 1964. Many new articles of equipment were necessary, including some items not previously supplied, e.g. a Campbell bed, mechanical back rests, air humidifiers, Ekco babysittas, oxygen masks and protective pants with disposable interliners. The number of items loaned during 1964 was 7,318, an increase of 1,376 over the previous year.

DAY NURSERIES

Twelve day nurseries continued to provide care for 670 children. Eleven of these are training nurseries for the National Nursery Examination Board. During the year, twenty health department students sat for the N.N.E.B. Certificate, and nineteen were successful at the first attempt.

The local health authority nurseries provide day care for those children who fall into certain priority groups. These are children who have only one parent to support and care for them, children from families with a sudden health or social problem, children of families receiving a very small wage, and a small number of handicapped children.

There has been a slight change in the proportion of children admitted in each priority group:—

	1963	1964
Children from broken homes ...	30%	25%
Children of unmarried mothers ...	25%	27%
Domestic emergency ...	8%	24%
Low wages ...	15%	17%
Other causes ...	22%	7%

Children admitted because of a domestic crisis usually remained in the nursery for a shorter period than those who came from broken homes, or whose mothers were unmarried. This quick change in the nursery population increased the risk of introducing infection, but the amount of infection of all types in the nurseries remained at a satisfactorily low level in 1964. The short period which these children remained in the nursery is shown by the fact that at one nursery adjacent to the Psychiatric Day Hospital, 74 children were admitted and discharged within a period of three months; 42 of these children remained in the nursery for only one month.

It was possible during 1964 to admit a limited number of physically or mentally handicapped children. These children have benefited greatly from close contact with normal children of their own age, who help and protect them instinctively. A large number of these children cannot be admitted, as they require special treatment which cannot be provided easily in a day nursery.

During 1964 there was an increase in the number of child minders, private day nurseries and playgroups registered by the local authority. This illustrated the need for care outside the home for children who do not fall into the priority groups for admission to local authority day nurseries. A larger number of nursery schools might well provide the service required. The children of school teachers and nurses who were encouraged to return to work, children who lived in cramped accommodation or in multi-storey flats, or who were lonely with no neighbouring children to play with, were cared for in private nurseries. One private nursery continued to be run by a voluntary society for mentally handicapped children.

Thirty-three nurseries and child minders were registered in comparison with 1963, when seventeen were so registered. Thirteen of these were playgroups open part-time, or catering for one group of children each morning, and a different group each afternoon, thus providing a safe playground for a larger number of children.

These nurseries, playgroups and child minders were visited regularly by assistant medical officers, who were able to give help and advice on the welfare of the children.

HOME HELP SERVICE

DEVELOPMENTS

Two extensions of the Home Help Service came into being in 1964, first a Sunday service, staffed by volunteer home helps working a rota system of one Sunday in four, who attend one or two patients to light the fire and prepare a meal, and in addition, the “Caretaker” service for the homes of patients in hospital, who are without relatives who can assist. In these cases home helps, working in couples for security reasons, are concerned with the cleaning and warming of the house particularly immediately prior to the return of the patient from hospital.

STATISTICS

The total number of families assisted during the year was 4,728 compared with 4,126 in 1963. Included in this figure were the following categories :—

	1963	1964
Maternity cases	149	160
Chronic sick and tuberculosis	344	418
Other illnesses	721	900
Mentally disordered	6	6
Over 65 years of age	2,906	3,244

Included in the “other illnesses” are three cases of toxæmia of pregnancy where help was granted free of charge. In two of these cases service proceeded normally for periods of two and seven weeks respectively. The third case, a lady in her ninth pregnancy and suffering from myocarditis and toxæmia was more involved. She refused hospital treatment because she was already in debt with the Children’s Department for the care of her children during a previous confinement. Service commenced but the condition of the patient deteriorated and her removal to hospital was essential. Service continued but with difficulty as the children developed a skin infection and their father did not return home until a late hour. Eventually the section had no alternative but to request the Children’s Department to take action which they did immediately.

Of the 2,949 cases which commenced in 1964, 2,109 were entirely new and 840 re-commenced service during the year. The 2,109 new cases were referred from the following sources :—

Hospitals	523
General Practitioners	428
Patient and relatives	422
Health Visitors and District Nurses	277
Welfare Service	236
National Assistance Board	163
Other sources	60

All requests for service are answered as quickly as possible by a visitor from the home help section who discusses with the patient or a

responsible person the amount and type of service needed and the fee to be paid, if any. Arrangements are as follows:—

1. A maternity case is normally booked in advance for full-time service and help provided as and when required.

2. The patient who is confined to bed will need daily service and this can be provided from two to eight hours daily. In some cases the home help makes a morning and afternoon visit to the same patient.

3. The handicapped person who cannot light her fire will require a short period of daily service as well as a period for housework.

4. The pensioner who is in need of help because of age or loneliness will usually receive service on one morning each week. There is a tendency on the part of some elderly ladies to cease all activity when provided with help. The alternative is to postpone assistance until it is really needed but experience has proved this to be bad practice unless the applicant is visited regularly. Therefore the section tends to provide service earlier than is absolutely necessary in such cases and the householder is encouraged to do the lighter work, such as dusting, leaving the heavier chores to the home help.

The standard charge for service remained at 3/- per hour, an amount which is low by present day standards. Those unable to pay this sum were assessed on income and the patient whose sole income was a pension and national assistance was provided with service free of charge. This free service was reserved for those who live alone and was not extended to families with other income who benefited from assistance given.

There are few cases in the total number of persons receiving help who do not require some other form of help or advice, for example requests for wireless sets dealt with by the Personal Service Society; the need for items of clothing which are out-dated but are still stocked by one or two shops in the City—the home help will purchase these; the need for nursing services which must be referred to the general practitioner for his attention; requests for mobile meals together with any other problem dealt with by the welfare service section; requests for chiropody service and additional help from the National Assistance Board; all must be passed to the appropriate department.

As with visitors, home helps frequently overstep their official duties in an effort to help their patients. They often attend at an early hour to dress or prepare a patient for hospital or return at a late hour because they are concerned about a sick person. These are small attentions which mean so much to those confined between four walls.

Telephone vandalism has interfered with the work of the home help recently. She is instructed to telephone for instructions should the

circumstances of her patient alter and, as a consequence, she is available for other duties. The home help does not consider herself available until she is satisfied that her patient's whereabouts are known, if she is not satisfied the police are asked to assist.

Amongst the many cases assisted by the police were two incidents of gas poisoning, both patients were alive when removed to hospital but both died later.

The number of home helps in December 1964, was 458. The number who joined the service in the year was 173 and the resignations numbered 118 which shows the considerable turnover of staff which occurred. The main reason for the resignations was domestic and the system of engaging staff to work at least six hours daily was abandoned in November in favour of the original method of employment for four hours daily for suitable applicants.

TRAINING COURSE

The training course for home helps continued in 1964, at the Mabel Fletcher training college. The students attended on six mornings for instruction in the following subjects:—

1. Basic nursing duties including the lifting of patients, bed making, etc.
2. Knowledge of food values, wise shopping, cooking with limited facilities.
3. Use of electrical equipment, etc.

Six courses were held during the year and these were attended by 84 home helps.

TYPES OF CASE

Two examples of the types of case dealt with by the section are as follows:—

1. In August service commenced for a family who had previously been assisted in 1962 when the third child was born. On this occasion the mother had been removed to hospital suffering from a brain tumour leaving at home three children aged eleven, ten and two years. The father was at work and the children, who were very devoted to their mother were fretful. Service was provided from 9 a.m. until 5.30 p.m. and during the third week of service the patient died. The home help continued to attend for a further two weeks in order that the father could make arrangements for the future care of the children. A very grateful letter was received from this parent.

2. A lady of 86 years had been assisted since 1961. She had always been a problem because of her fondness for dogs but the collection was

reduced to one elderly dog in 1964, and the home help was attending on one day per week. In October, however, her condition deteriorated mainly because of loss of sight and the service was increased. From another source the home help was informed that the patient was being admitted to hospital and without informing the section ceased her attentions. Fortunately a home help visitor accompanied by a student health visitor chanced to call within a few days and found the old lady without food and in a dirty condition. They fed and cleaned her and daily service was resumed. Sunday help was also provided as it was quite evident that here was a patient who was utterly alone. A fireguard, curtains and floor covering were obtained and the patient now blind and deaf is still at home and her service is well supervised.

HEALTH EDUCATION

Many members of the staff, including medical officers, welfare officers, public health inspectors and health visitors, gave lectures on request to a wide variety of organisations.

Many aspects of the work of the Department are of special interest to certain sections of the public, and a wide variety of different requests was received for speakers on subjects of particular interest to the organisations concerned. These ranged from food hygiene to fluoridation of drinking water.

Particular attention was given to the subject of smoking and lung cancer and a great deal of help was given in the form of talks, advice and the supplying of educational material to a variety of youth clubs, church organisations and schools.

LIVERPOOL SHOW

Various aspects of the work of control of poliomyelitis, health visiting and the occupational therapy services were displayed at the Liverpool Show. A cinematograph show was arranged with films on various aspects of poliomyelitis, including one made at Fazakerley Hospital by kind permission of Dr. Christie, and of immunisation, along with general films on health and hygiene. Lectures were prepared on tape, to accompany slides illustrating the work of the Department. This was extremely popular, there being as many as six requests during the three days from various groups of the public for repetition of some of the films exhibited.

POLIO IMMUNISATION

A novel feature of the Health Department exhibit at the Liverpool Show which proved to be very successful was a clinic for issuing polio vaccine on sugar lumps, by three "fairies". On going through the number attending this clinic, it was seen that quite a number of late adolescent and young adult males had attended, as well as children. It must be remembered that although they may have attended initially with perhaps some measure of facetiousness, when at a later date they are faced with the consideration of polio immunisation for their own children, to them polio vaccine will be more acceptable and pleasantly associated with their experiences at the Liverpool Show.

PARENTS' CLUB

The Norris Green Parents' Club continued to meet twice each month. The membership remained high and the members were, as ever, very enthusiastic. A health visitor attended each of the meetings.



Child Welfare Clinic—Hearing Test

Health Education—Mothercraft Class





District Nursing Service—Helping the Handicapped



1. Aids for Handicapped.
i) District Nurse attending patient using
9. electrically operated hoist attached to a runner on the ceiling.



Home Help attending Maternity Case.

Aids for Handicapped. This chair mounted on castors enables the chair-bound patient to move freely in a restricted space



EPIDEMIOLOGY

The number of cases of notifiable infectious disease occurring in 1964 compared with 1963 is shown in the table below:—

Disease							Notified Cases 1963	Notified Cases 1964
Diphtheria	...	...	...	...	...	...	3	1
Dysentery	...	...	...	...	...	...	383	313
Enteric Fever	...	...	...	...	...	...	8	3
Erysipelas	...	...	...	...	...	...	26	17
Food Poisoning	...	...	...	...	...	...	63	31
Malaria (contracted abroad)	...	...	...	...	...	...	10	11
Measles and German Measles	...	...	...	...	...	...	4,837	7,136
Meningococcal Infection	...	...	...	...	...	...	15	15
Ophthalmia Neonatorum	...	...	...	...	...	...	97	88
Acute Primary and Influenzal Pneumonia	...	...	...	...	...	...	349	208
Poliomyelitis	...	...	...	...	...	...	1	1
Puerperal Pyrexia	...	...	...	...	...	...	356	315
Respiratory Tuberculosis	...	...	...	...	...	...	391	273
Non-respiratory Tuberculosis	...	...	...	...	...	...	43	28
Scarlet Fever	...	...	...	...	...	...	495	638
Whooping Cough	...	...	...	...	...	...	1,762	666

The incidence of infectious disease in 1964 was similar to 1963 except that there was no epidemic of whooping cough.

The unusually severe form of whooping cough which was prevalent in 1963 was not seen again in 1964. Cases were fewer, 666 instead of 1,762. The disease was very much milder, both in the severity of the symptoms and in duration. Many cases, particularly among those immunised against whooping cough, were so mild as to be barely recognisable were it not for the obvious contact with other cases of whooping cough. There were few cases with serious complications.

Measles cases rose to 7,136 compared with 4,837 in 1963. The disease was again very mild and compared with previous years rashes would appear to be slightly more prominent and respiratory symptoms

slightly less. There were very few severe cases and often the disease manifested itself by little more than a slight rash accompanied by a rise of temperature.

ANTHRAX

No case of anthrax occurred during the year. However, an interesting episode occurred which serves to highlight the importance of the constant vigilance of the Health Department in preventing this disease from occurring from quite unexpected and unusual sources. An arrangement exists by which the University of Liverpool Anatomy Department is supplied with a variety of interesting anatomical specimens from mammals when deaths occur in a nearby zoo. The responsibility for dealing with the supply of these specimens is normally that of a veterinary assistant. At the particular time in question this assistant was away from work having been injured in a motor car accident leaving a section officer, without professional veterinary training, to deal with the specimens. While the assistant was off sick, a female elephant died. A post-mortem was ordered but the problem of carrying out such a post-mortem on an elephant weighing three tons is no easy one to solve. At the time it was particularly cold and snowy in early March. The elephant was in a small pen and the simple physical problem had to be faced of removing the elephant to allow access to other animals. This necessitated dismembering the limbs, a task which could only be carried out slowly so that two days elapsed before the abdomen could be opened. To avoid any further delay which might spoil the specimen of the uterus, this was packed and posted to the Anatomy Department forthwith. Subsequent examination of the viscera showed the heart cavity to be bloodstained and there to be longstanding pleurisy. Bacteriological specimens were taken but it was not until three racoons died that the suspicion of anthrax arose. Subsequently all the other elephants in the section were lost from this disease along with some other smaller mammals that had been fed from elephant meat. In the meantime the specimen container had leaked blood and tissue fluid on arrival in the laboratory. The sample and the blood soaked wrappings were examined for anthrax and disinfection of the specimen, container and surroundings was carried out. Fortunately in the acute stage of the disease from which the elephant died, most of the the anthrax organisms were in an actively growing form, not in the sporing form, which is resistant to destruction. It was therefore a simple matter to ensure no spread of anthrax on arrival of the specimen in Liverpool. This instance shows how easily and unexpectedly the spread of disease by infected material can occur and the importance of constant alertness to these possibilities.

PARATYPHOID

During July, a party of teachers and school inspectors attended

a resident training course at the Foyer des Lycéenes, Paris. Subsequent to their return to this country it was reported by the Ministry of Health that two members had developed paratyphoid due to paratyphoid 'B' organisms of phage type Taunton. It appeared likely that the infection was contracted in France, though the precise source had not been ascertained. It was reported that three members of this party came from Liverpool. On investigation it was discovered that one of the three had returned to an adjacent area and so the information was passed on to the appropriate Medical Officer of Health for his attention. The remaining two had returned to Liverpool and initially on questioning, both were symptom free. Pathological examinations were carried out to determine whether they were excreting paratyphoid 'B' organisms and whether there was any significant change in agglutination reactions of their bloods indicative of active infection or the presence of a carrier state. The initial bacteriological results were negative but the agglutination reactions were borderline. In view of this, further examinations were carried out and subsequently they both developed minor symptoms and were found to be excreting organisms of *Salmonella paratyphi* 'B', phage type Taunton. They were admitted to Fazakerley Isolation Hospital and both made a satisfactory complete recovery. Their home and school contacts were investigated and all these results were negative. Prompt notification by the Ministry of Health had enabled arrangements to be made for a doctor from the Health Department to visit the teachers immediately on arrival and thus to avoid spread of the infection.

During September a deck boy returned off a voyage from Alexandria via Beirut, Lattakia and Gibraltar arriving home in Middlesbrough. He had taken ill with one day's vomiting, a fortnight's loose motions and abdominal colic while on his return voyage through the Mediterranean. He was only very mildly affected and was given no treatment while on board ship. On return home to Liverpool he was isolated and investigations carried out. *Salmonella paratyphi* 'B' phage type Dundee was found on stool examination. He was admitted to Fazakerley Isolation Hospital for treatment. By the middle of November he had recovered completely and was no longer excreting organisms. His home contacts were investigated but fortunately good isolation had been maintained and no one else was infected.

POLIOMYELITIS

A single case of poliomyelitis occurred during October.

This was a little boy of nine who complained for three weeks of feeling unwell and listless accompanied by discomfort on looking at bright lights. It was noticed that he was frequently wanting to lie down and took no interest in a normal boy's activities. His parents noticed that over this time he had lost his appetite and when he was examined

by his medical practitioner, it was found that he had marked weakness of his legs and some slight weakness of his arms. A diagnosis of acute poliomyelitis was made and he was admitted to Fazakerley Isolation Hospital. Here he made a slow but uneventful recovery. Clinical and virological examinations were carried out on all his immediate contacts. These were all negative.

During the course of the year the Health Department has maintained a large stock of oral type polio vaccine in reserve, deep frozen, to cover the eventuality of a poliomyelitis outbreak, so that blanketing could be carried out at a moment's notice. The practice has been to maintain this reserve, use incoming batches of poliomyelitis vaccine to add to this reserve stock and remove from the reserve stock the earlier batches of vaccine for current use. Poliomyelitis vaccine is potent, providing it is kept under ideal conditions in a low temperature deep freeze, for considerably longer than it would be under normal refrigeration conditions. As soon as the case came to notice the possibility of using this vaccine for a blanketing procedure was explored. The circumstances appeared to be ideal. The child lived in one block of flats that comprised a small group of similar buildings in a newly developing area, which with the small surrounding estate formed a clearly demarcated zone. The children who were in contact attended four schools only. It was thus a simple matter to define a logical limit to the operation. This was commenced the same evening as the diagnosis was confirmed. The technique adopted was to mobilise over $1\frac{1}{2}$ days all the available health visitors and ancillary clerical staff with a Principal Medical Officer and an Assistant Medical Officer. Every person in the area was contacted either by door to door visiting of the houses and systematic floor to floor visiting of the flats. On interview a quick explanation of the reason for the visit was given and polio vaccine of the oral type on sugar lumps was issued on the spot. Where persons were missing, sufficient vaccine was left with careful instructions so that on their return home, this could be taken. A note was made of all cases where this was carried out and also of all primary doses so that adequate follow-up could be ensured. Very quickly word went round in the area and members of the public made themselves available very conveniently at the time they knew they would be visited, the whole operation proceeding extremely smoothly. At the same time as the visits to the homes were being carried out, the school nurses visited the four schools and gave polio vaccine similarly to every person in the school who had produced a valid consent form which had been issued the night before. During a day and a half a total of 7,038 doses of polio vaccine was issued, which included 688 first doses. Arrangements were made to complete the courses in these cases. At the end of this time the result was achieved that the area in which the child had made contacts had been completely blanketed.

Practically all the persons in that area had received a dose of polio vaccine, thus the likelihood of any polio viruses being spread in the community was reduced to an absolute minimum, since it is known that the virulent virus causing the disease has very great difficulty in establishing itself in any person who has just been given oral polio vaccine. Despite the fact that the child was ill for three weeks before isolation was achieved and had made many contacts in an area of dense population, no further case occurred.

DIPHTHERIA

One case only of diphtheria occurred during the year.

In early April a previously fit young married woman of 29 with a healthy family was taken acutely ill with a sore throat and a general feeling of weakness. When she was examined it was found that she had a congenital heart lesion which made it difficult to detect possible signs of heart involvement in the disease, her heart rate was persistently elevated and only returned to normal some months after recovery. Her throat was covered with large ragged ulcers from which, on swabbing, diphtheria organisms were isolated. Similar organisms were also found in her nose. She was admitted to Fazakerley Isolation Hospital where she recovered from the acute features of her illness and became bacteriologically negative within a week. She remained generally debilitated for some three months, becoming easily breathless and her pulse fast.

Her husband, a healthy adult of 33, remained unaffected and was negative on both nose and throat swabbing. Her three children, a boy of nine, a girl of seven and a boy of five had no symptoms but on examination were found to have slight nasal congestion and reddish looking throats. They had no glandular enlargement of the tonsillar glands and no ulceration of their throats. On swabbing, they produced the same organism as found in the case. As a precaution they were admitted to hospital with their mother and they cleared equally quickly with no further development of any signs or symptoms. The three contacts were all given diphtheria anti-toxin initially and subsequently were immunised with diphtheria toxoid. Eleven contacts around the home were also investigated plus the classes in the school attended by the children. All these examinations were completely negative.

Although the organism was one which is not normally considered to be pathogenic and is certainly one of very low virulence, it was felt that this case must be regarded as a true case of diphtheria and the cause to be due to the organism isolated. Before reaching this conclusion, the possibility of a virus infection of the glandular fever type superimposed on a benign carrier state was explored. All the investigations of this alternative proved to be negative. This case and the affected contacts show that diphtheria can still occur, particularly in the non-immunised,

and this underlines the need for a vigorous diphtheria immunisation policy.

DYSENTERY

During 1964, 313 cases of dysentery were notified. This is of the same low level that has been experienced for several years now.

Notified cases of dysentery	
1954	494
1955	920
1956	269
1957	484
1958	931
1959	407
1960	515
1961	335
1962	296
1963	383
1964	313

Liaison with Hospitals and General Practitioners

Emphasis is placed on an early establishment of bacteriological diagnosis in each notified case. Bacteriological diagnosis is made at the first opportunity. In order to avoid antibiotic or chemotherapeutic treatment interfering with this diagnosis, close liaison with the practitioner treating the case either in hospital or in general practice is essential. Wherever possible, an attempt is made to obtain specimens before treatment is given. This means an avoidance of many days delay for it is useless to attempt a bacteriological diagnosis during the course of anti-bacterial treatment. When positive bacteriological diagnosis is made, follow-up is carried out until the case is negative, that is when at least three specimens at a week's interval are negative.

Close co-operation is maintained with Fazakerley Infectious Diseases Hospital and it is often possible, where home circumstances are satisfactory and bacteriological follow-up by the Health Department can be carried out without difficulty, to discharge a case still excreting the organism. This practice necessarily has to be very selective, and each case has to be considered very carefully. It has been found that with close individual attention it is possible for the patients to return home more quickly than would have been considered possible in the past and, at the same time to ensure that family contacts are not infected.

Institutional Outbreak

During the year a sharp explosive outbreak of Sonne dysentery occurred in the New Hall Training Centre. This involved a total of sixteen children in the junior section and one older sister of one of these children in the industrial training side of the unit.

As soon as the circumstances were known, vigorous control measures were instituted. The question of closing the portion of the unit involved was considered but it was felt that this well might spread the disease rather than contain it. One building on the junior side was very heavily affected and the next building partly so. It was therefore decided to keep each building with its occupants in strict isolation, not even allowing the children or adults to cross the road to the opposite side. Thus each building became a closed community in which it was possible to control the disease as an individual problem. All the children and staff were investigated and all persons with a positive stool were excluded, being followed up at home. Only when successive negative specimens were obtained, were either the children or staff allowed to return after being affected. Within each unit vigorous supervision of disinfection of articles handled, of washing of hands and also of faces after the toilet was introduced. The opportunity was taken also to give repeated and detailed instruction in personal hygiene to all of the children attending. It is very satisfying to be able to report that no secondary cases whatsoever occurred, that the outbreak cleared up instantly and the staff of the unit deserve great credit for carrying out the advice and instructions of the Health Department with great conscientiousness and enthusiasm. It is particularly satisfying to be able to report that, in spite of the fact that the persons attending this centre for training are mentally handicapped, it was possible to maintain complete isolation of the disease to the buildings affected and to prevent spread to the industrial side. This was of particular importance, since on the industrial side, food containers were being handled. The control and containment of the outbreak was so effective that it was possible to continue with this work unhampered.

FOOD POISONING AND SALMONELLA INFECTION

It is very satisfying to be able to report that during 1964 there were no serious outbreaks of food poisoning or Salmonella infection. In the majority of cases, a single individual was the only person affected. In the six outbreaks in which other members of the family or close contacts were affected by the same organism, no more than two persons were affected in any one group. A table giving the organisms found in the notified cases is listed below:—

Organism				No. of persons from whom organism was isolated.
Salmonella	anatum	...	...	2
Salmonella	brandenberg	...	...	1
Salmonella	enteritides	...	...	2
Salmonella	glostrop	...	...	1
Salmonella	muenchen	...	...	1
Salmonella	singapore	...	...	2
Salmonella	tennessee	...	...	1
Salmonella	thompson	...	...	1
Salmonella	typhimurium	...	...	4
Salmonella	virchow	...	...	4

ENTEROVIRUS SURVEY

The survey of infants for detection of enterovirus carriers which was started in 1962 in co-operation with the Liverpool Public Health Laboratory was continued throughout the whole of 1964. The selection of cases was continued on the same pattern of the examination of two or three families per week taken at random from the birth register. A total of 143 specimens was examined and 21 enteroviruses were isolated. Details are as follows:—

Positive isolations							
Echo virus type 2—13	...	...	...	...	...	...	4
„ 14	...	...	...	...	...	...	—
„ 1	...	...	...	...	...	...	4
Adenovirus type 2	...	...	...	...	...	...	—
„ 5	...	...	...	...	...	...	1
Echo virus type 2 with Coxsackie virus type A.	...	...	...	...	...	...	—
Coxsackie virus type A.	...	...	...	...	...	...	—
„ B.2.	...	...	...	...	...	...	—
„ B.3.	...	...	...	...	...	...	—
„ B.5.	...	...	...	...	...	...	1
Poliovirus type 1.	...	...	...	...	...	...	5
types 1 and 2.	...	...	...	...	...	...	2
„ 1, 2 and 3.	...	...	...	...	...	...	1
type 2.	...	...	...	...	...	...	—
types 2 and 3.	...	...	...	...	...	...	1
type 3.	...	...	...	...	...	...	2
							21

All positive cases were investigated and in no instance were family carriers found nor a previous history of illness or any physical signs elicited, that is to say these were all silent carriers. The polio-viruses were not of the virulent type but, as might be expected with continuous administration of oral polio vaccine, due to the vaccine type virus.

INFLUENZA

The influenza spotting scheme was again put into operation during the winter months. A small number of isolated cases of influenza occurred, but there was no epidemic outbreak.

IMMUNISATION AND VACCINATION

DIPHTHERIA IMMUNISATION

The number of persons receiving a primary course of diphtheria immunisation in 1964 was 11,839. This represents an 18% improvement on the figures for 1963. This improvement was brought about entirely by the efforts of the Health Department staff. Whereas increased immunisation was carried out in maternity and child welfare clinics, 5,263 in 1963 to 5,710 in 1964 and likewise in schools, 1,362 in 1963 to 2,732 in 1964, general practitioners did not share this success. The number of immunisations in doctors' surgeries or in patients' homes fell from 3,399 to 3,397. Accompanying the improvement in primary immunisation has been a similar improvement in the number of booster doses given, to a figure of 1,790 in 1964, representing almost a 30 per cent improvement on 1963. The main improvement here was due to the extra numbers being done by both general practitioners and by school medical officers visiting schools. It is clear that the change of policy introduced at the end of 1963 whereby immunisations were carried out at school medical inspections instead of at special sessions arranged in schools has proved its worth.

WHOOPING COUGH IMMUNISATION

The pattern of whooping cough immunisation follows closely that of immunisation against diphtheria. The total number given a primary course of whooping cough vaccine was 8,937. Although whooping cough booster doses are not usually given after five years of age and it is not the practice as a routine to administer these at school immunisation sessions due to the increased number of reactions in this age group, the number given during 1964 was 1,264.

TETANUS IMMUNISATION

During 1964 there has been a great demand for tetanus immunisation to the extent that a total of 18,821 persons received either a primary course or a booster immunisation. The universal use of triple antigen accounts for 11,815 of this total. It has been the policy of the Department since late in 1963, when immunising children in schools with booster doses of diphtheria, to use combined diphtheria and tetanus antigen so that the children may have the benefit of either the booster effect of the tetanus antigen or the combined antigen may form the first dose of a primary course of immunisation against tetanus. As a result, booster immunisations for tetanus in schools rose from 152 in 1963 to 5,490 in 1964.

Tetanus Register

The considerable increase in immunisation against tetanus has necessitated a review of the formulation of the tetanus register. A useful

working register has been established in the Health Department, but so far duplicates have not been established either at Myrtle Street or Alder Hey Children's Hospitals. It is now apparent that the likelihood of a child, presenting with an injury at hospital, to have been immunised against tetanus is extremely high, and this will be even more so as the years go by at the present level of immunisation. It has therefore been agreed that the wisest course to adopt is to give every child instead of anti-tetanus serum a dose of tetanus toxoid, where prophylaxis for tetanus is indicated. If, on enquiry, it is found that the child has not been previously immunised against tetanus then this can form the first dose of a primary course. If on the other hand the child has been immunised, then this dose will serve as a booster. In individual cases where the surgeon in charge of the case decides that treatment with anti-tetanus serum is desirable then, with the present vaccines in use, no incompatibility exists. The present tetanus toxoid and anti-tetanus serum may be given together. It thus becomes apparent that the register in existence in the Health Department is adequate to deal with enquiries and therefore duplicate registers in the two hospitals will not be necessary.

SMALLPOX VACCINATIONS

The diminution in the number of infants being vaccinated which resulted from the change of policy from vaccination in the first year of life to vaccination in the second year has continued during 1964. The effect, however, has not been quite so marked as in the previous year. The total vaccinations have risen from 1,795 in 1963 to 4,071 in 1964, out of which figure 1,962 were carried out in Health Department clinics.

The number of vaccinations for purposes of travelling abroad increased from 2,219 in 1963 to 2,837 in 1964. This increase was mainly due to the increased number of persons holidaying during the summer months or travelling on journeys to areas of the world requiring vaccination.

POLIOMYELITIS VACCINATION

Poliomyelitis vaccination in 1964 showed a marked increase from 6,041 primary courses in the previous year to 12,207, an increase of over 100 per cent and for booster doses from 1,002 to 6,890. This increase was mainly brought about by the new techniques adopted in the Health Department, coupled with a general all-round increase of effort. The employment of health visitors to take polio vaccine to persons' homes has proved very successful.

YELLOW FEVER CLINIC

A total of 9,654 persons attended the Hatton Garden Clinic, which is held each afternoon for the purpose of vaccinations and im-

munisations for international travel. Of these, 3,788 were immunised against yellow fever, 2,837 were vaccinated against smallpox, 1,174 immunised against typhoid and paratyphoid A and B, and 1,855 against cholera. Invariably ships' crews are required to attend the clinic in Hatton Garden, but where difficulties would have been encountered resulting in delaying of shipping in the port, a team of doctors and nurses visited the ships and immunisations were carried out on board. This practice was made the extreme exception rather than the rule, as due regard had to be given to the difficulty of maintaining adequate asepsis on board ship. A total of 150 yellow fever inoculations was carried out on six ships.

CONTROL OF RADIATION HAZARDS

REGISTRATION UNDER RADIOACTIVE SUBSTANCES ACT, 1960

During 1964 no additional users were added to the 1963 register, although one industrial source went out of use and the registration was cancelled.

Close liaison was maintained throughout the year with exchange of information between the Health Department and the Fire Service. One fire occurred at a factory using two moderate sized gamma ray sources. The department was consulted and within minutes the information required was available from the register. A medical officer attended the fire so that any advice regarding radiation hazards could be dealt with instantly on the spot but fortunately the fire was brought under control before this eventuality arose.

USE OF RADIOACTIVE SOURCES IN SCHOOLS

During the year, 35 schools or educational establishments applied for permission to use radioactive substances for teaching purposes. Although most sources to be used were extremely small, this was not so in every case and precautions to prevent biological hazards arising were necessary. All the premises were inspected by a medical officer from the Health Department and a fire prevention officer. When experience had been gained of the variety of circumstances and the nature of the applications, joint discussion took place between representatives of the Fire Service, Education Department and the Health Department so that a policy could be formulated of advice on handling procedure, choice of sources and experiments and regular inspection of sources for possible damage. An important aspect of this work was that many of the persons who were to use the radioactive substances in teaching, although possessed of adequate theoretical knowledge, had little practical experience or familiarity with the handling of such sources. During the course of inspection of the premises the persons to be using the sources were interviewed and the opportunity was taken to emphasise important aspects of radiation control and to clear up many misunderstandings or misconceptions. This work required to be spread over several months but fortunately with most of the applications being made very early, it was possible to complete the recommendations in time for the establishments to receive their sources early in the subsequent year.

LACK OF ADEQUATE PRECAUTIONS

It is rare nowadays to find any source being used under circumstances where the precautions against the possibility of health hazards are inadequate. In general it might be said that in most cases these are rather more than adequate rather than the reverse. However, during the

year, an instance came to the notice of the Health Department where no precautions were taken in the matter of a Strontium 90 beta source of moderate size, one which could, but fortunately did not, give rise to an appreciable hazard. The circumstances arose as follows: A factory premises and much of the equipment and fittings had changed ownership. The new owners consulted the Health Department over the use of radioactive materials. When the factory was visited, the visiting medical officer was presented with a source of somewhat museum piece appearance consisting of a plaque of Strontium 90 mounted in a home-made laminated perspex block with a thin lead cover on one side, a steel handle being screwed to the other. This had been left and forgotten in a drawer in a desk. The original intention had been that the source should be used by hand, the source being placed on one side of a row of cartons and a detector observed on the opposite side, the purpose being to determine which cartons were full and which were empty. This primitive method of use would have been quite unsatisfactory and was abandoned, very shortly after the source was made. Being useless for any industrial purpose, the source was presented by the firm to the Radiation Monitoring Laboratory to be used for teaching purposes and as an additional source for standardisations.

TUBERCULOSIS

STATISTICS

There was a further reduction in the year of new cases found. A total of 301 was discovered, consisting of 273 pulmonary and 28 non-pulmonary cases. This is a reduction of 131 on 1963 and gives an incidence rate of 0·37 per 1,000 for cases of pulmonary tuberculosis and 0·05 per 1,000 for cases of non-pulmonary tuberculosis, a reduction on the figures for 1963 which were 0·53 per 1,000 and 0·06 per 1,000, respectively.

During the year, 980 cases were removed from the Register, consisting of 941 pulmonary and 39 non-pulmonary. These include those cases who have recovered during the year but before regarding this as an improvement, it must be borne in mind that with the closure of the Central Chest Hospital and the Central Chest Clinic and transfer to the new clinic at the Radium Institute, the register was revised more extensively than would have normally taken place. Even having regard to this peculiar factor, for this year, these figures do represent an improvement in the state of tuberculosis in Liverpool.

At the commencement of the year the number of cases on the register was 5,573. Of these, 5,204 were pulmonary and 369 non-pulmonary. This gave a prevalence rate per 1,000 of the population of 7·11 pulmonary and 0·50 non-pulmonary with an overall tuberculosis prevalence rate of 7·61 per 1,000 at mid-year.

The total number of cases remaining at the end of the year was 4,498, comprising 4,216 pulmonary and 282 non-pulmonary. Thus it may be seen that the overall reservoir of cases is continuing to decrease. Allowing for the special case of the Central Chest Clinic, the fall in numbers of cases on the register at the other clinics shows that there is a true decrease in the reservoir.

The number of new cases found as the result of illness was 221, which is 76 less than the previous year. The number of new cases found by examination of apparently healthy persons was 80, that is 69 less than last year. The proportion of cases detected in apparently healthy persons has remained little different from previous years. Other statistical details are given in the tables in the Appendix.

Of the total new cases of pulmonary tuberculosis, 188 were male and 113 female, giving a percentage ratio of 62·4 male to 37·6 female. The bulk of cases occurred in early adult life, as has been the experience over many years now. Details of the distribution in age groups and sex are given in the statistical appendix.

There were 38 deaths from pulmonary and three from non-pulmonary tuberculosis in 1964, a total of 41 tuberculosis deaths. These

represent rates per 1,000 of the population of 0·052 pulmonary and 0·004 non-pulmonary and 0·056 for all forms.

TUBERCULOSIS AFTER-CARE AND PREVENTION

The full complement of tuberculosis visitors for the year remained at sixteen, who originally were distributed between the four clinic areas. With the closing of the Central Chest Clinic and Chest Hospital, a re-distribution and allocation of work was carried out. The opportunity was taken to re-appraise the distribution of cases and the case loads of the visitors before re-allocating areas. Following discussion with the Regional Hospital Board and the Chest Physicians, it was decided, as an interim measure, that a clinic should continue in new premises at the Radium Institute to absorb those cases who would normally have attended the Central Chest Clinic and for whom difficulty might arise were they to be transferred to one of the other clinics, but as a general policy as far as possible, new cases should be absorbed in the remaining three clinics. In practice, it has been found that this arrangement has worked very smoothly although the initial case load for the Radium Institute Clinic has been heavier than might have been expected. Coupled with the move of clinic, the areas covered by the tuberculosis visitors have been re-designated to allow for movements of population with town development and housing transfers to outside the City boundary. In addition the areas have been enlarged and instead of a solitary visitor dealing with each area with her own individual case load, the work of each area is now divided between two visitors working as a team. This has had the great advantage of continuity of work in the absence of one visitor, or during times of staff changes from persons leaving and new appointments being made. In addition a greater element of discussion and general improved standard has resulted since the visitors are no longer working in the degree of isolation that would have been experienced when they had an individual and personal case load. As in recent years, visits have remained concentrated on cases of greatest need and on re-visiting cases where social and particularly housing conditions were affecting the disease or where persons were waiting either for re-housing or transfer. Details of the work in relation to rehousing appears in the section on the Housing Points scheme. In general the aim has been to concentrate a greater amount of time on fewer cases in an attempt to eradicate sources of infection. Much more attention and group work are being given to each individual problem. This policy would appear to pay dividends as is shown in the reduction of tuberculosis.

Use of Section 172

The value of Section 172 of the Public Health Act, 1936 has been in the main not in its use but in the fact of its existence lending power

to persuasion in cases who might otherwise refuse. Each year the need to use these measures of persuasion and the need to use letters, warning of the possibility of legal action, becomes less and less. Instead, there is growing up a public acceptance of the work of the Health Department in preventing tuberculosis. During the whole of the year, in only one instance was it necessary to use Section 172 procedure. This case was a man who, in the advanced stage of the disease, was transferred from Walton Prison to Aintree Hospital. He had extensive tuberculous infiltration of the left lung and the right upper lobe with minimal infiltration of the right base. His general condition was extremely poor with severe cough and copious sputum which was persistently positive on culture. With the toxæmia of his disease and his untoward experiences he was embittered and resentful of any help. Shortly after admission his left lung collapsed from air leaking through its ulcerated surface into the pleural cavity, a condition of spontaneous pneumothorax involving the middle and lower zones of his left lung. This greatly increased his breathlessness which had been present ever since admission. In desperation he refused to have any treatment to re-expand his collapsed lung or to relieve the embarrassment caused to the other lung by the air leak. He would get out of bed, dress and insist on going home. It was only with the greatest difficulty he was persuaded to stay in hospital, helped by the fact that it was physically impossible for him to move very far from his bed. He was visited by a medical officer from the department and the position clearly explained to him. In spite of this he refused categorically to remain in hospital. After the Magistrates' Order was made, his attitude changed and having been resigned to his forceful detention in hospital, he soon came to realise that this was not in the nature of a punishment but that people were helping him to recover. He came to accept treatment and although he was in a dying state on admission to hospital, he did subsequently improve and has some chance of ultimate complete recovery. Further, had he been allowed out of hospital, he would no doubt have remained a serious source of infection to other persons, going from one temporary residence to another. Initially hostile, since he saw the intervention of the law as an infringement of his personal liberties, he gradually came to appreciate that what was done for him could both save his own life and prevent the disease spreading to others. It has been a constant finding in the use of this procedure, that persons who may initially be hostile, soon accept the state of affairs and do not harbour resentment for the Health Department for having intervened in this way.

B.C.G. VACCINATION

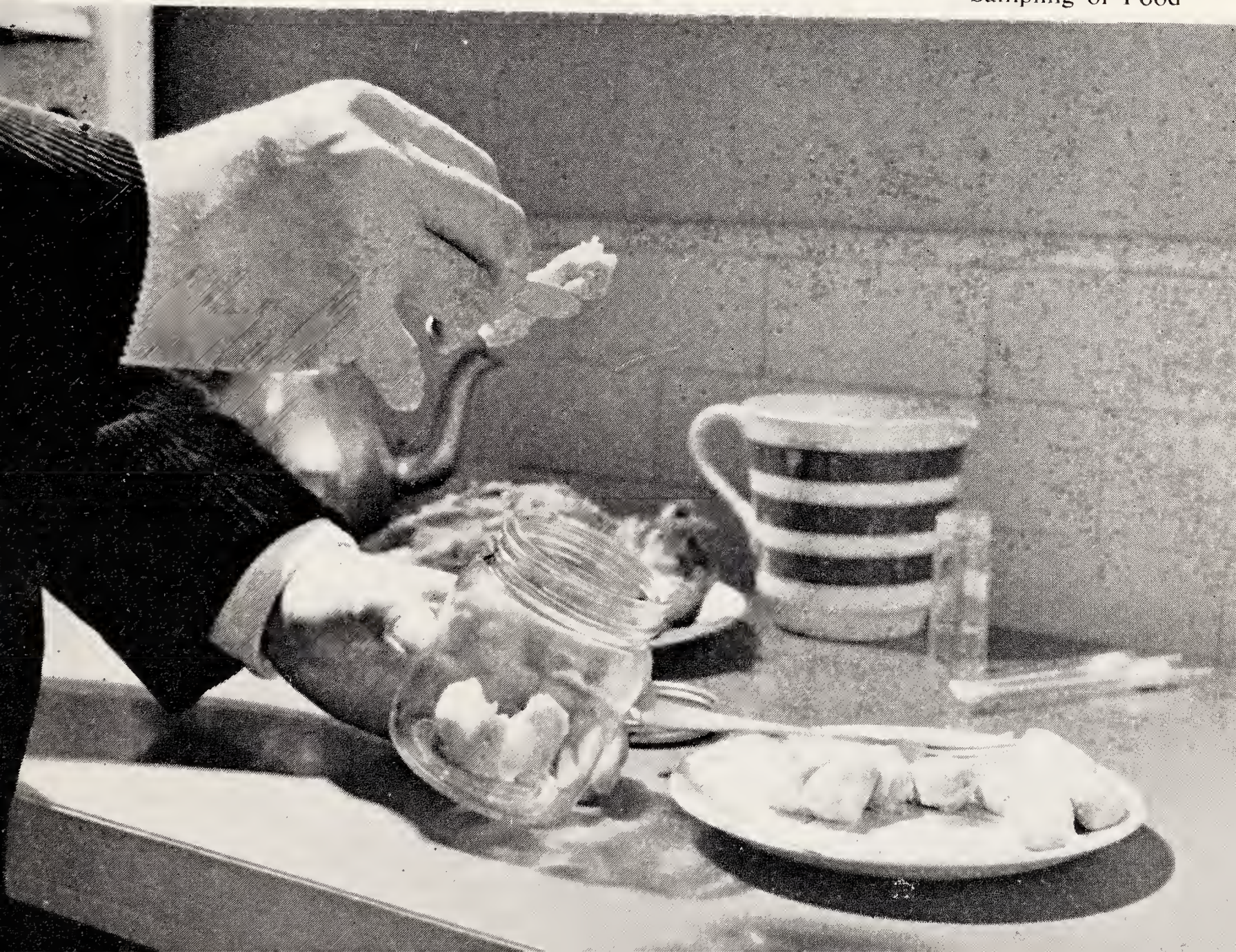
During the year, B.C.G. vaccination of new-born babies continued in both the clinics and maternity wards of the Sefton General, Walton,



Taking a throat swab

BACTERIOLOGICAL INVESTIGATION

Sampling of Food





B.C.G. Vaccination

Sheltered Workshop—Bookbinding by Physically Handicapped Persons



Mill Road and Liverpool Maternity Hospitals. The total throughout all these units in the City was 2,076.

B.C.G. Vaccination of Teacher Trainees

Students at teacher training colleges and University were offered B.C.G. vaccination. During the year, nineteen teacher trainees were Heaf tested, giving thirteen positive results, the remaining six were vaccinated with B.C.G. In addition, 60 University students were given B.C.G. vaccination at Walton Hospital.

B.C.G. Vaccination of School Children

Vaccination was offered to 11,133 school leavers and 9,272 parents signed the consent form. The number Heaf tested in schools was 8,456, of which a total of 1,309 were positive reactors. Of the remainder, 7,139 children were given B.C.G. vaccination.

Proportion of Positive Reactors

The proportion of positive reactors in 1964 was 9·3 per cent compared with 11·2 in 1963, and represents the lowest recorded figure. An index of how tuberculous infection has decreased in Liverpool is given by the fact that in 1954, when vaccination started, the figure of positive reactors was 34 per cent.

MASS RADIOGRAPHY

Mr. C. C. Warmer, Organising Secretary, Liverpool Regional Hospital Board, writes:—

The Liverpool Regional Hospital Board administers the Mass Radiography Service. A static unit operates at 9A, Hood Street. Two mobile units cover South West Lancashire and Wirral in addition to visiting industry in the City of Liverpool.

The static unit at Hood Street examines individuals from three main sources:—

- (i) Cases referred by general practitioners mainly within the City.
- (ii) Local business firms, shops and offices.
- (iii) General public volunteers.

The numbers X-rayed by the three units in 1964 were as follows:—

No. 1 Unit	(Hood Street)	33,924
No. 2 Unit	(Lancashire)	51,412
No. 3 Unit	(Cheshire)	49,793
Total		<hr/> 135,129 <hr/>

Of the 33,924 examinations made by No. 1 Unit, 9,697 were referred by general practitioners.

All prospective employees of the City Nursing Service are X-rayed by the Hood Street unit before their engagement, as are candidates for employment in the Education Service, and recruits to the City Police Force. The entry medical examination of Corporation employees and superannuation medical examinations include a chest X-ray, and these are carried out by the Mass Radiography Service.

The Mass Radiography Service co-operates closely with the Health Department by arranging visits of the mobile units to factories and other premises in the City whenever an active case of pulmonary tuberculosis is discovered.

The number of cases of active pulmonary tuberculosis discovered in 1964 by the Hood Street unit was 52; of these, 36 were Liverpool residents. A further 29 active cases resident in the City were discovered by the mobile units, making a total of 65 Liverpool cases brought to light by the Mass Radiography Service.

TUBERCULOSIS WELFARE

During 1964, 98 cases have been the subject of reports to the National Assistance Board with a view to determining their eligibility for special rates of allowances applicable to cases of tuberculosis. The National Assistance Board constantly review persons in receipt of allowances and request confirmation that individuals are still receiving treatment, or are under the supervision of the Chest Physician. The department co-operates fully in this matter and supplies the Board with the information necessary. In addition, constant liaison is maintained with the Ministry of Labour Rehabilitation Centre in order to assist in suitable cases. A summary of the cases dealt with during 1964 is as follows :—

Total eases referred by the Ministry of Labour for rehabilitation	...	...	48
(a) Examined and found fit for light, part-time or full-time employment	...	34	
(b) Not fit for employment	...	...	—
(c) Failed to attend for examination	...	...	—
(d) Certified as non-tubereulous	...	...	—
(e) Cases not yet examined	...	...	14
Actual numbers of patients reported by Ministry of Labour as placed in employment	...	...	7

During 1964, seven patients have had occupational therapy at home and two have attended the Rumney Road Unit.

WORK OF THE CHEST CLINICS

The statistical survey of the work done during 1964 at the four

chest clinics is given in the statistical appendix. The Chest Physicians have kindly contributed the following reports:—

Dr. F. J. Welton from the Central Chest Clinic writes:—

1964 saw the end of the old Central Chest Clinic, Roscoe Street, following the closure at the end of September of the Liverpool Chest Hospital. The area served by the clinic was divided into two halves; those patients living in the southern half (including the Upper Parliament Street area) were transferred to the South Chest Clinic, Sefton General Hospital, and this arrangement has proved satisfactory.

The temporary service for the northern half (including the Scotland Road and Netherfield Road areas) was established at the Radium Institute and the provision of a new permanent Central Chest Clinic for this area is under consideration by the Regional Hospital Board at the time of writing.

It will be appreciated that no comparative figures can be given following the closure of the old clinic. Experience at the Radium Institute has shown that there is much resistance to this type of change and only nine new cases of tuberculosis were discovered during the last three months of the year. This means that in the absence of a really efficient clinic a good deal of disease is liable to go undetected. It is hoped that by the time this report is published the situation will have been remedied.

There is no doubt that the intensive fight against tuberculosis in the City, and particularly in the Central area, will need to be sustained for many years yet. The special features of the fight in this locality have been considered at length in previous reports and need not be repeated now. Perhaps it will suffice to say that the clinical weapons, proven and effective, are available for the treatment of all cases discovered and the hospital beds are ready and waiting if required. The benefits of the welfare state, slum clearance, re-housing, rehabilitation, etc., all play a valuable part. The continuous campaign of case finding needs to be tackled energetically by clinic and public health staffs alike and the first essential is the effort towards gaining the co-operation of the public, especially contact families and the general practitioners concerned.

Recent changes have unfortunately served to hinder this co-operation and have brought no small discouragement to the staff who have known better days and realise the needs of the moment. However, it is still possible in time to bring down the incidence of tuberculosis to the irreducible minimum. This has not yet been reached by any means, and to achieve it will require sustained effort both by the Local Health Authority and the Regional Hospital Board.

Dr. W. Gray of the North Chest Clinic writes:—

1964 proved to be a very satisfactory year for the North Chest Clinic, when the number of new notifications from pulmonary tuberculosis fell to 75, compared with 103 in 1963.

There still remains a pool of 28 persistently positive cases, four with resistant organisms. These cases fall mainly in the older age groups, and present grave therapeutic and public health difficulties. Many of them have been irregular takers of treatment in the past, and because of the chronic nature of their disease proved to be difficult therapeutic problems.

During 1964 there were 51 deaths from tuberculosis, 24 of them being primarily due to tuberculosis, and the remainder to other causes. The mortality rate has not altered much over the last few years.

Patients removed from the register as recovered numbered 154, so that the list of patients remaining on the register has now fallen to 1,376, compared to 1,665 in 1963. The total attendances of Liverpool patients at the clinic was 5,953, of whom 1,970 were non-tuberculous patients suffering from chronic bronchitis and other chest conditions.

New contacts examined were 454, of whom three were diagnosed as having pulmonary tuberculosis, and 320 B.C.G. vaccinations were performed, 60 being University students, and 117 being babies and nurses from Walton Hospital. The number of tuberculin tests carried out was 609, which is again a slight reduction on the previous year.

Dr. F. E. Crawley, from the South Liverpool Chest Clinic, writes:—

This year the records of the Clinic cannot be compared with those of previous years, for in October the greater part of the former Central Clinic area was transferred to the South Clinic. I leave my colleague Dr. Welton to report on the year's work of the Central Clinic and the consequences of the change and trust that his comments will be in more moderate terms than I should feel appropriate to the change.

In so far as the South Clinic is concerned, the re-organisation caused administration problems in the clerical department for a short time, but the transferred patients are now absorbed into normal routine.

Tuberculous patients requiring hospital treatment now all go to Aintree Hospital, and the closure of the Liverpool Chest Hospital, to which a few of these patients would have preferred to be admitted, has not raised any problem worthy of comment. Non-tuberculous clinic patients have found the loss of the Chest Hospital of much more importance, and greater use has had to be made of beds in Sefton General Hospital in view of the limited accommodation available for their care in Aintree Hospital. So far, in a non-epidemic period, only minor problems have

been apparent in the competition between their needs and those of patients requiring in-patient treatment for non-respiratory disorders.

Last year the area was out of step with the remainder of the City, and with the country at large, in reporting an increase in notifiable tuberculous disease. This year we get back to step with a fall from 181 to 124, this fall being equal in the sputum negative and sputum positive groups.

There has been no increase in the number of patients with resistant strains during the year.

Dr. D. Osborne Hughes, from the East Liverpool Chest Clinic, writes:—

Several milestones have been passed in the work of the East Chest Clinic during 1964, but there are still numerous indications that the end of the campaign against tuberculosis in these parts is not yet in sight.

The Register of patients suffering from respiratory tuberculosis now contains less than 1,000 persons, for the first time also the annual number of new patients with respiratory tuberculosis fell below 100.

During 1964 there were no cases of non-respiratory tuberculosis in children added to our Register, but this must not be accepted as an absolute indication of the absence of disease—some children are treated in other hospitals and if the case is not notified it will not come to our notice.

A comparison with the figures for 1954 will show where progress has been made and where improvement is slower.

Adult male positive (infectious) cases are down by 42·5 per cent, in females of the same category the reduction is 73·3 per cent; for non-infectious cases the figures are for males a reduction of 61·4 per cent and females 67·9 per cent. The greatest improvement is seen in the children's group where a decrease of 79 per cent is seen. The number of B.C.G. vaccinations was again over 700 for the year.

Difficulties over housing and employment continue with many of our patients; it seems deplorable that even when a patient has been removed from the Register as a recovered case, employment in government offices is difficult. This out-of-date attitude is fortunately not encountered in industry or in the local government service.

The closing of the Chest Hospital has not been followed by any increase in the work of this clinic, but two of the four health visitors helped at Central Clinic for three months and now one is there part-time.

VENEREAL DISEASE

INCIDENCE OF GONORRHOEA

The trend of increase in gonorrhoea continued in 1964. Although this is predominantly a male problem, the increase was not confined to men. There has been an increase in the incidence of gonorrhoea in women which has now reached the same level of incidence as during the peak year of 1946, although when drawing a comparison between the two years, consideration must be given to improvements in diagnosis during the intervening period. The male level is at present only half of that year. As may be seen from the table below the female increase has been mainly in the age group 18 to 25. The numbers of patients presenting for treatment with re-infections from gonorrhoea were 137 men and 45 women. It is the first time for many years that there has been no case reported in a child under 15 years of age. The observed increases are mainly due to the trend of increase in casual promiscuity rather than an increase in prostitution. A new factor which is emerging is the influence of changing choice of contraceptive method, particularly an increase in the use of hormone contraceptives with a corresponding reduction in the use of the condom. Although the condom cannot be regarded as a means of preventing the spread of gonorrhoea its use does, to a slight extent, decrease the risk of infection. Although the effect of this factor is becoming apparent, it is as yet a little early to assess with any certainty what its influence is likely to be.

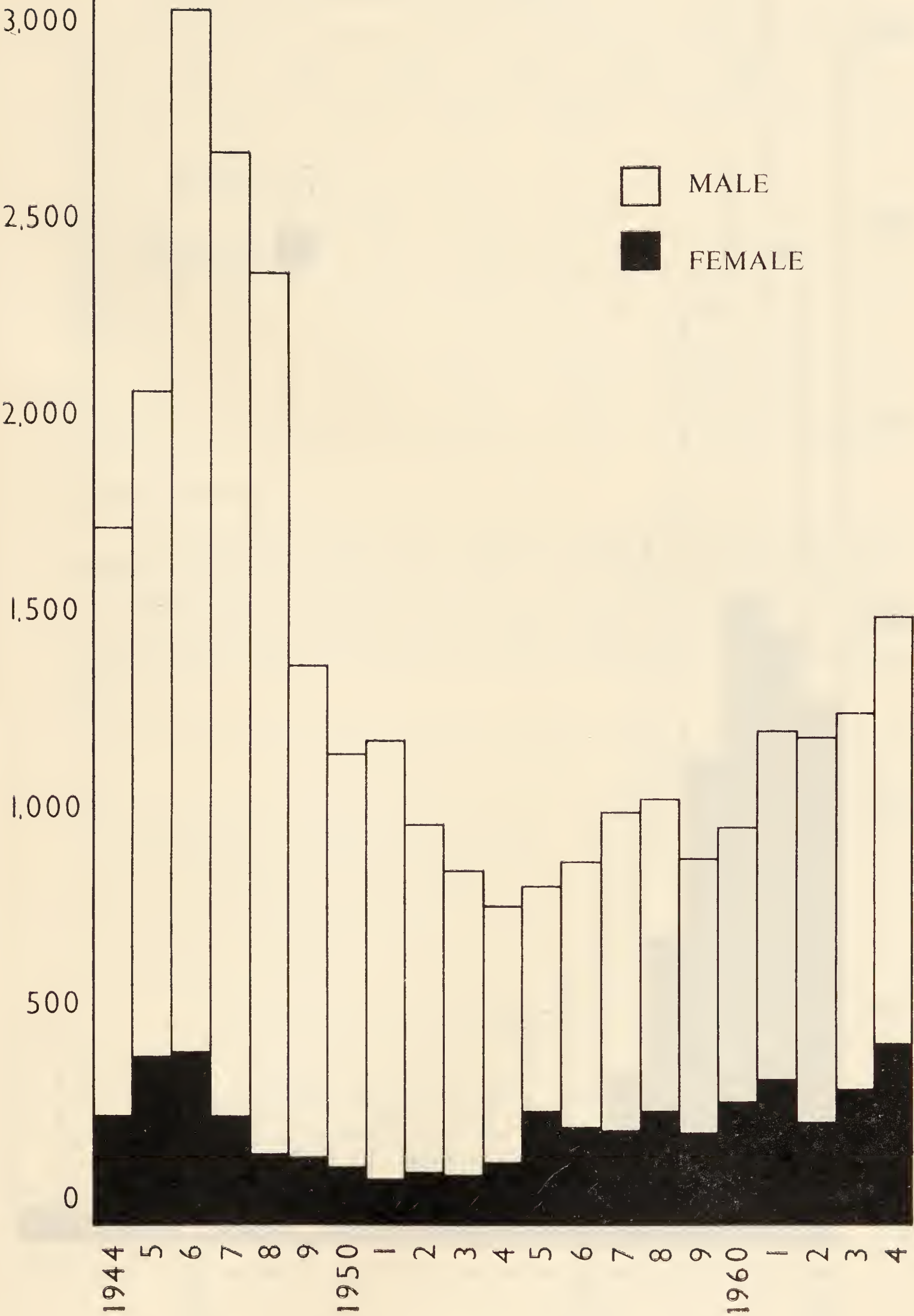
Statistics over the years are as follows:—

Age in years	1946		1959		1960		1961		1962		1963		1964	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 15	—	4	—	2	1	2	—	5	—	1	—	2	—	—
15-17	21	17	16	17	27	15	24	27	42	25	37	31	49	43
18-20	262	79	131	71	116	77	180	94	184	86	204	85	228	129
21-25	978	141	281	79	340	122	416	138	429	106	427	122	541	140
26-30	870	88	225	36	227	54	295	56	294	36	302	57	377	66
31-35	513	53	128	16	133	17	155	21	148	20	149	23	170	29
36-40	259	29	75	7	98	8	102	16	79	13	85	10	91	8
41-45	135	5	43	2	33	2	52	3	44	6	49	3	70	2
46 and over	74	6	41	1	38	4	49	4	42	4	64	3	43	5
Total	3,112	422	940	231	1,013	301	1,273	364	1,262	297	1,317	336	1,569	422

INCIDENCE OF SYPHILIS

Coupled with the increase in gonorrhoea, there has been a similar increase in the incidence of syphilis. Again this has occurred in the age groups 18 to 30. The substantial increase in male cases is

INCIDENCE OF GONORRHOEA
1944 - 1964



700

INCIDENCE OF SYPHILIS

1944 - 1964

600

500

400

300

200

100

0



MALE



FEMALE

1944

5

6

7

8

9

1950

1

2

3

4

5

6

7

8

9

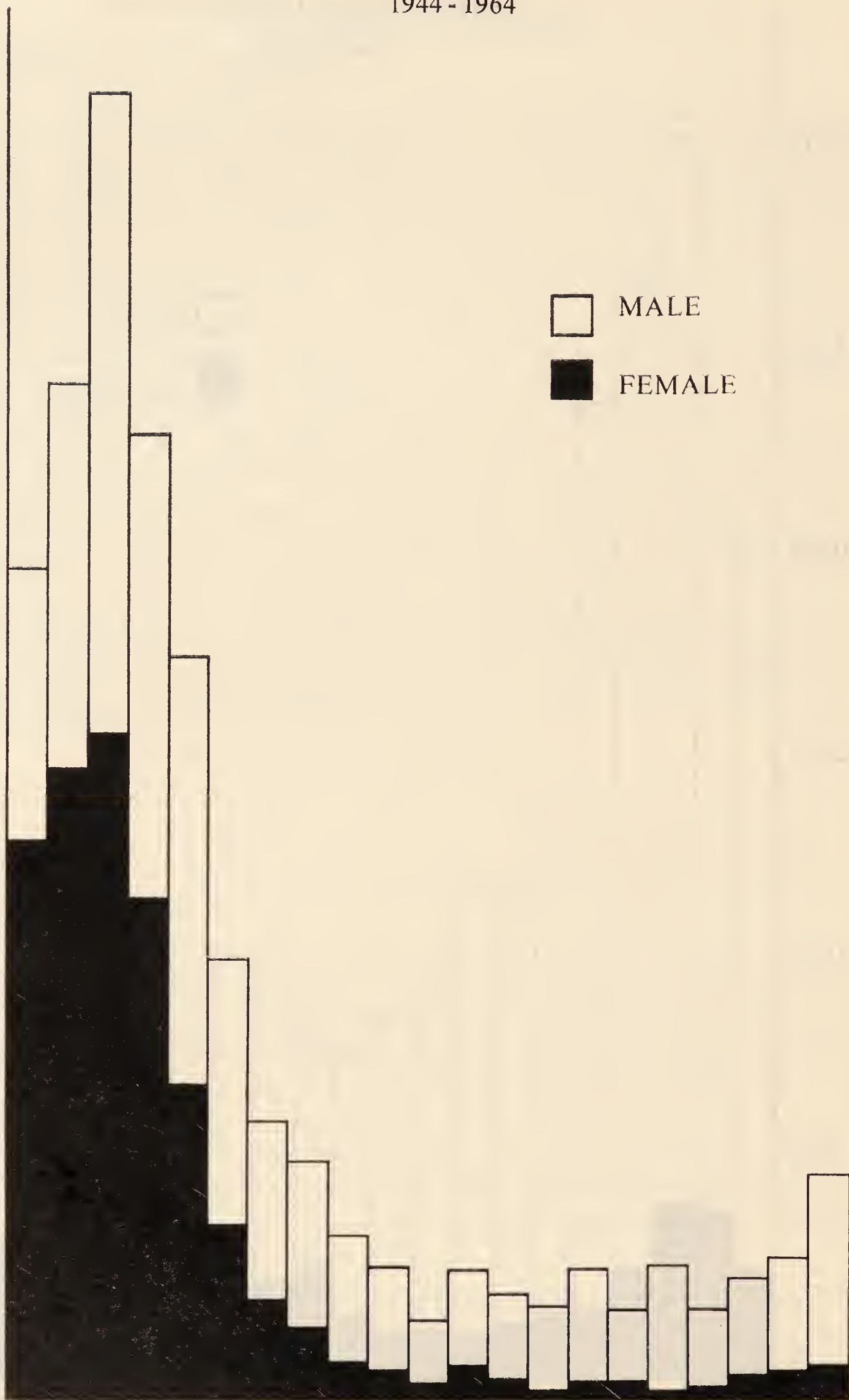
1960

1

2

3

4



accounted for almost entirely by patients infected abroad coming into the port.

Details over the years are as follows :—

Age in years	1946		1959		1960		1961		1962		1963		1964	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 15	—	2	—	—	—	—	—	—	—	—	—	—	—	—
15-17	9	15	1	—	4	—	4	—	1	—	2	—	2	1
18-20	40	71	7	3	9	—	5	—	6	1	9	3	18	5
21-25	177	111	15	4	25	1	10	2	19	3	24	2	36	6
26-30	149	57	8	—	6	—	8	—	11	3	14	4	20	3
31-35	136	41	1	—	6	—	10	1	9	—	9	2	9	—
36-40	73	23	4	—	5	—	2	1	4	1	5	—	3	1
41-45	32	5	2	—	4	—	2	—	4	—	—	1	5	1
46 and over	39	6	7	1	3	—	—	—	4	2	3	1	3	—
Total	655	331	45	8	62	1	41	4	58	10	66	13	96	17

CONTACT TRACING

A far greater success in contact tracing could be achieved if infected persons were more often able, or willing, to provide details of the identity of the person who was the source of infection. Experience has shown over a number of years that, with few exceptions, traced contacts are readily co-operative; this is illustrated in the following table :—

	Male	Female	Total
Number of reports of alleged source of infection ...	2	32	34
„ „ cases traced and interviewed	1	11	12
„ „ „ reporting at Clinic	1	10	11
„ „ „ untraced	1	21	22
„ „ visits carried out (home, lodging, club etc.)...	3	58	61

The table shows that 22 contacts were untraced. The high proportion, 22 out of 34 reports, is due mainly to a lack of information from the notifying agency. Whilst allowing for inability or reticence on the part of many infected persons it is felt that improvement could be

made. Two examples of inadequate description are given to illustrate this point:—

1. Age 19 years, height 5 ft. 4 in., medium build, blonde.
2. Age 19 years, met in club, exposure at unknown hotel.

In comparison examples of successful contact tracing are given below:—

Contact 1. A contact was notified by French nick-name, her hair colour and style, her accent and the public house frequented by her were also named. Enquiry here proved fruitless but at another nearby establishment it was found that a prostitute, 'A', answering the contact's description was said to be known—she called from time to time with a female friend, 'B', who was known to the police.

Through this information, the contact was traced, interviewed and escorted to the Special Clinic where she was found to be suffering from early primary syphilis. Her discovery was fortunate since it was most probable that she, being at an early stage of the disease, had not infected her partner, but had been infected by him, his disease being more long-standing and further advanced.

Contact 2. An ante-natal patient, who was referred by a local clinic following the discovery of positive serology on routine blood testing, failed to report for further investigation. She was visited at her lodging and escorted to the clinic. Questioned en route, she reluctantly admitted having attended, but having defaulted from, an ante-natal clinic in the Midlands some two months previously.

Further investigation showed that the patient, an English single girl of 17 years of age, was suffering from early latent syphilis and also gonorrhoea. Enquiry of the Midlands ante-natal clinic revealed that she had given a fictitious Arab name. Her disease had been discovered but she had failed to re-attend and could not be located. This clinic was informed of the details, for the patient stated that she might return to that area, and would re-attend in the event of further pregnancies.

Patients attending V.D. clinics are given every encouragement to continue regular attendance for as long as is considered necessary whether it be for active treatment, surveillance or investigation. On default, as so often occurs, they are written to and, if no response is made to the letter, are visited at their homes. The results obtained in this work are shown in the respective tables.

VENEREAL DISEASE—PATIENT DEFAULTERS

			Con- genital	Total
	Male	Female		
No. of cases written to	1,603	815	18	2,436
No. of letters despatched	1,730	1,581	21	3,332
No. of cases reporting in response	708	429	14	1,151
No. of letters returned by Dead Letter Office ...	173	42	—	215
No. of cases traced and transferred	42	8	1	51

VENEREAL DISEASE—RESULTS OF HOME VISITS

			Con- genital	Total
	Male	Female		
No. of cases visited	547	456	4	1,007
No. of visits made	1,134	1,501	24	2,659
No. of cases attending following visits	239	268	2	509
No. of cases promising to attend but failing to do so	47	41	1	89
No. of cases removed or not known at address given	124	95	—	219
No. of cases not contacted, no access, away from home, etc.	93	25	—	118
No. of cases who refused to re-attend	33	22	—	55
No. of cases removed and transferred for follow-up	11	5	1	17

CASES REFERRED BY ANTE-NATAL CLINICS

Seven cases were referred by ante-natal clinics for further investigation in respect of doubtful clinical or serological findings. The findings were as follows:—

	Early Latent Syphilis	Late Latent Syphilis	Gonorrhoea	Negative Tests	Total
Diagnosis following investigation ...	1	3	1	2	7

Fourteen babies were transferred from maternity units for treatment of gonococcal ophthalmia neonatorum; in no instance had the mother of any infant attended a special clinic during pregnancy.

MENTAL HEALTH SERVICE

In the last few years it has been possible in each Annual Report to point to further progress in the plans made to develop the City's mental health services. The year 1964 has been no exception for it has seen the opening of the first residential hostels for mentally disordered people at New Hall, Fazakerley.

The acquisition of the New Hall estate by the Health Committee in 1959 gave a great impetus to the plans and a number of projects on this estate are described in detail in the report. Unfortunately, there has been some delay in the plan for a sheltered workshop there but at the end of the year there was a good prospect that this key scheme would be completed during 1965.

Though New Hall takes up a good deal of the report other activities of the service continue as usual. Home visiting was at about the same numerical level (17,000 visits) as last year. It is difficult to assess the results but some examples are given and it is felt that much valuable work is done.

Mention is made again of the part played by mental welfare officers in the admission of patients to psychiatric hospitals and the recurrence of difficulties encountered in this vital part of the department's work.

A survey of mental health review tribunal cases which was made in last year's report has been brought up to date and individual cases are described in detail.

Perhaps the most noteworthy feature of the year, apart from New Hall developments, has been the growing importance of door to door transport between the homes of patients and training centres. Children and adults who would otherwise have hardly ever been able to get outside their own homes have been enabled to enjoy the training and the friendly contacts they make at the various centres. It is obvious that this service is "fulfilling a long felt want" and its further expansion is desirable.

STAFF

The following changes in staff establishment have been made during the year: six posts of senior mental welfare officer were created and filled by promotion. Four additional supervisory posts at workshops were approved and some of the staff for seven hostels was recruited. At the 31st December the full establishment was as follows:—

Principal Medical Officer (Mental Health).

9 Senior social work staff.

21 Mental welfare officers, including three trainees.

65 Supervisory staff at training centres and workshops.

13 Supervisory staff at hostels.

9 Administrative and clerical staff.

In addition there was a total of 49 domestic employees of various kinds.

Recruitment and Training

The problem of recruiting suitable social work staff, common to the whole country, remains. The full-time courses for the Certificate in Social Work are becoming well established but cannot provide sufficient qualified candidates for many years. Unfortunately two officers seconded to one of these courses in September 1963 failed to complete it, but three officers have been seconded to the two years' full-time course starting in September 1964.

The chief source of recruitment continues to be the psychiatric hospital nurse and 17 of the present visiting staff of 21 (i.e. excluding three trainees) are ex-hospital nurses.

The nurse fresh from hospital has the advantage of having learned about mental disorders and come into contact with patients over a long period, but the disadvantage that he has no training in the community care work which he has to do as a mental welfare officer.

In-service training is perhaps more adequate for training centre staffs, though here too a full-time course is an advantage and officers are seconded each year to the diploma course of the National Association for Mental Health. Three officers seconded to the 1964 course were successful in gaining the diploma.

As anticipated, the staffing of the New Hall Hostels presented problems and some vacancies remain unfilled, despite being advertised several times. The establishment consists of a house-parent and assistant for each hostel with a superintendent, himself in charge of a small hostel, with overall responsibility for the group of seven hostels and eventually for a total of thirteen hostels when the next phase is completed.

Two senior mental welfare officers continue to be employed on special duties, one acting as liaison officer between homes and training centres, the other dealing with employment matters and persons attending the workshops.

At 31st December, 1964 there were 2,937 people on the lists of the visiting officers. Mentally ill persons numbered 1,413, nearly all of who had spent a period in a psychiatric hospital, while 1,156 were men-

tally subnormal adults and 368 mentally subnormal children. Dividing this total into the total number of visits for the year, viz. 17,000, we get an average of six visits to each patient. In practice, of course, such an average means little as needs vary so widely. The mentally subnormal person cared for by his family may need very few home visits, whereas immediate support and frequent visits are necessary for the person coming out of a psychiatric hospital after a long stay, faced again with problems which may have contributed to his illness.

COMMUNITY CARE

As in previous years a small selection of cases dealt with during the year has been made to illustrate particular facets of the work, including its limitations.

Example 1—Support over a long period:—

Mr. and Mrs. A had lived an uneventful life until 1950 when Mrs. A, at the age of 59, suffered a mental illness diagnosed as melancholia. Two months in hospital were followed by two years of home visits by a mental welfare officer. Nothing out of the ordinary occurred, though a warm, friendly relationship developed; the officer discontinued visits at the end of the two years so as to be able to concentrate on more urgent cases. Domestic life proceeded for another four years without incident.

In 1957 Mrs. A was again in hospital for a short time and after-care was resumed on much the same pattern. Two years later she suffered her most severe attack, having to be admitted for the first time by compulsory procedure. In the same year her "recurrent depression" was further exacerbated by the need to have an operation for a distressing physical condition. Nevertheless the emergency passed and she resumed community life.

She cannot be described as recovered, being depressed and unsure of herself, but the fact remains that she has not been in hospital since 1959. The same officer who visited in 1950 has been on call over the whole period—obtaining meals on wheels and home help, filling in pension forms (Mr. and Mrs. A are both in their seventies now) and, by just being at hand, giving the ageing couple the confidence and ability to continue in their own home instead of entering a hostel or hospital. These are good people. They appreciate what is being done and the officer is by no means wasting his time in supporting them.

Example 2—A suicidal patient:—

There is no need to give the full background in this case in order to show that the visiting officer is not a miracle worker. Suffice to say that in the last 18 months, Mrs. B, a married woman with three children,

has been in psychiatric hospitals five times (the first admission following meningitis). Three of the admissions have followed attempts to commit suicide.

Domestic discord has contributed to her condition: the situation can perhaps be inferred from a remark made by her husband—"twenty tablets are no good, why didn't you take forty and do it properly".

The officer was able to lessen the risk of suicide for a period by consulting Mrs. B's doctor who restricted the supply of sleeping tablets. The intensive support given—over fifty visits have been made—may be doing good, and in any event, practical help about the children and domestic arrangements is necessary.

Mrs. B is now again in hospital. Visits will be resumed immediately she comes out. The officer is not likely to have any illusion that visits will effect a "cure" and her efforts must be directed towards a happier home atmosphere with any practical measures seen to be necessary.

Example 3—Supervision of mentally subnormal people:—

This case illustrates the poor outlook when mentally subnormal people marry and the fact that no amount of supervision and help in the community can be expected to safeguard the best interests of such people completely. It also has wider implications in relation to personal liberty.

When the backgrounds of the two persons concerned are studied, the course of events is not really surprising. "George", now 29, made no progress at a special school and was notified as "ineducable" at age 12. Father was out of work, mother poorly equipped mentally, the home reported as "shocking".

"George" was in trouble for stealing and often wandered from home. At his parents' request he was placed on the urgent list for hospital care but no vacancy was given. He was allocated a place in a day training centre for the subnormal, failed to attend for some time, but from 1954 onwards attended fairly regularly. By this time he was 18 and a report shows that he had been found interfering with his sister, had been sleeping out and was uncontrollable. He was, of course, still on the urgent list for hospital care but when at last a vacancy was offered in 1957 the parents refused it.

For a few years there was some improvement, with the family rehoused and "George" attending the New Hall workshop when it opened and earning a little money there. In 1962 a report said he was "happy and causing no trouble". Trouble was on the way, however, behind the scenes. "George" was walking out with "Margaret" and was also in some difficulty with the police, though no charge was brought.

“Margaret’s” background is strangely similar—referred after attending special school, father unemployed (later died), mother of poor intelligence and home poor and dirty. Perhaps she is a little brighter than “George” (though he was undoubtedly the dominant partner in the association) and she has had short, though unsuccessful, periods of employment.

Visits to “George’s” home followed surreptitious meetings and “Margaret” became pregnant. “George’s” family were quite pleased and marriage was arranged by the parents.

At an early stage in the association the visiting officer’s enquiry was met by abuse and in fact “George’s” conduct was such that he had to be excluded from the workshop.

Shortly before the birth of the child the wedding took place. “Margaret” went to live with “George’s” parents who greeted the visiting officer with “We’ve finished with you lot down there”. Consequently contact was lost for some months and when resumed, at “Margaret’s” mother’s insistence, matters had developed as follows:—

“George”, after three months in gaol for stealing, had announced his intention of having nothing more to do with “Margaret”; he was “going to get somebody better looking”. This statement he made at “Margaret’s” home, upon which her mother promptly ejected him. The baby had been abducted by “George’s” parents and returned by the police: the pram however was not returned—it was “alive with fleas” and had to be destroyed.

Thus at the end of 1964 “Margaret” was at home with her baby. “George’s” doings were not under supervision. The visiting officer has fair prospect of watching over “Margaret” and the baby and has dealt with the practical measures necessary—N.A.B. allowance, legal action for baby’s custody, liaison with health visitors, etc. Probably we will hear of “George” indirectly by means of the police or national assistance officers.

This case epitomises the difficulty inherent in trying to look after the welfare of mentally disordered, and particularly some mentally subnormal, people. On the one hand the citizen’s liberty must not be interfered with without good cause: on the other there are the “Georges” and “Margarets” conscious of their independence yet completely inadequate to cope with it, gullible, exploitable, hopeless as parents, useless as employees.

It is a dilemma with which the mental health service comes into contact constantly and calls for ingenuity as well as sympathy on the part of the officers.



Junior Training Centre—Speech Training
MENTAL HEALTH SERVICE

Sheltered Workshop—Packaging





Single Bedroom for Resident

NEW HALL, FAZAKERLEY

Central Hall



Example 4—Pre-care :

Mr. D, single, 31, had worked as a seaman and labourer but when his mother visited the mental health service early in 1961 he had been unemployed for three years. She was worried about his condition: he refused to work or to apply for help from the National Assistance Board: he was solitary and depressed but would not consult his doctor and most of each day he spent praying in church.

The officer found it very difficult to establish contact with Mr. D but after a number of setbacks his patient approach was rewarded and Mr. D. talked less guardedly to him and was also persuaded to visit his doctor. Though the condition was one of real mental illness there was no question at this stage of admission to hospital and the officer's efforts were directed to persuading Mr. D to accept regular medical treatment and draw the allowances to which he was entitled.

After six months intensive visiting further success was achieved: Mr. D. agreed to attend the occupational therapy unit in the mental health centre at Johnson Street. The improvement from then on was marked. He began to join in the activities there, even taking a leading part in a play and was happier and more co-operative at home.

The department's employment officer was at length brought into the picture and Mr. D. was placed on a six months' carpentry course at an industrial rehabilitation unit. This he completed in the middle of 1964 and immediately afterwards obtained a job as a joiner with a firm of contractors. He has held this post ever since without any trouble. Conditions at home have returned to normal.

From the foregoing it can be appreciated that the task of the mental welfare officer in community care work can be both frustrating and rewarding but there are cases which must give rise to constant concern because of the complete lack of co-operation on the part of the patient and his potential for grave anti-social or even criminal behaviour.

MENTAL HEALTH REVIEW TRIBUNAL

The after-care in the community of cases discharged by Mental Health Review Tribunals is of sufficient importance to justify description of some of the most difficult and unsatisfactory cases which have been dealt with in recent years.

Case No. 1.

Male, born 1930. First brought to notice of mental health service on 19th April, 1963 by his brother who reported that patient had been discharged by a Mental Health Review Tribunal from a psychiatric hospital in the south of England on 12th April, 1963.

Brother stated he had brought the patient home and had been immediately physically assaulted by him. These assaults had been repeated on several occasions until the brother became so afraid of the possible consequences that he ordered the patient out of his home. Brother reported that patient had been arrested some time before and sentenced to seven years imprisonment; he was found to be carrying a gun when arrested. He was subsequently transferred to hospital from prison and eventually discharged by the Tribunal. The patient was thought to be living with his 75 year old father but on investigation it was found that this was not so.

On 2nd May, 1963 a letter was received from the Ministry of Health stating that the patient had been discharged by a Mental Health Review Tribunal and was understood to be living in Liverpool. The letter asked if after-care could be provided with the patient's consent and periodic reports could be sent to the Ministry.

Subsequent inquiries by the mental health service revealed that the patient had appeared in Court on 1st May on two charges of being drunk and assaulting a police constable and had been sentenced to imprisonment. It was also learned that the patient was already known to the police because of his violent behaviour and to the prison medical officer who proposed to keep him under observation in view of his past history.

On 18th June, 1963 the National Assistance Board informed the mental health service that the patient had called for assistance benefit and had stated he was living at his father's address. When visited by a mental welfare officer who offered to provide after-care the patient told him quite loudly and with little choice of words what to do with the services offered.

On 17th July, 1963 a letter was received from a Member of Parliament stating that the patient had visited the Member to ask for help and had said that he had not been visited by a mental welfare officer. In view of this a mental welfare officer visited on 18th July but was unable to gain access to the patient's home although someone could be heard inside. The officer reported that a number of windows in the flat were broken. Several follow-up visits were made and the patient was eventually seen on 24th July. He was untidy and unwashed and the officer reported that the patient did not seem to understand the reason for the visit despite explanation, being too pre-occupied with delusionary ideas and obviously believing that he was persecuted by the police, doctors, psychiatrists and the mental health service. He threatened violence if this continued. Because of the patient's mental condition the mental welfare officer visited his general medical practitioner to report his findings and his concern for what the patient might do in view of his past history of violence but the doctor did not agree that any compulsory

action to have the patient admitted to a psychiatric hospital was necessary. At this time it was also learned that the father had left the flat because of patient's violent behaviour. The mental welfare officer informed the doctor that he would keep in touch with him about the patient.

On 8th August, 1963 the patient was found to be in a dirty, neglected condition. He was at home lying on an old mattress spread over a couch with a rough blanket round him. He was incontinent and had bedsores. The flat was filthy and the patient was grossly deluded. He was admitted to hospital as an emergency under Section 29 of the Mental Health Act with police assistance.

On 28th August the National Assistance Board informed the mental health service that the patient had called for assistance benefit following his discharge from hospital that day.

The patient was seen at home on 3rd September by the mental welfare officer, who considered that there was little change in his mental condition. The flat was filthy. The patient refused to accept after-care visits and told the officer to leave. In view of his findings the officer informed the patient's doctor.

On 25th September another letter was received from the Member of Parliament who stated that the patient had called and appeared to be in a very disturbed state. As a result of this the mental welfare officer again visited. He could not contact the patient but left a card. Subsequently the patient telephoned the mental health service and stated that he did not wish to be visited nor to have cards left nor to be solicited by the mental welfare officer. This was reported to the patient's general practitioner who was of the opinion that no useful purpose would be served by further visits.

On 20th December a letter was received from the National Assistance Board reporting that the patient's mental condition had deteriorated.

A mental welfare officer visited and found the patient's father in the flat. The old man was in very poor physical condition. He reported that the patient had assaulted him the previous night. The patient was not at home. The general practitioner was contacted and arrangements made for the father's admission to hospital because of his physical condition but the practitioner was unable to see the patient.

On 26th January, 1964 another letter was received from the Member of Parliament who had apparently been visited several times by the patient. This stated that the patient seemed very disturbed mentally; that he wanted to take an action against somebody or something and had applied for legal aid. Efforts by the mental welfare officer and general practitioner to contact the patient proved unsuccessful.

On 24th February patient was acting in a strange manner in the street and was taken to a hospital by the police. He was examined and as a result compulsorily admitted to a psychiatric hospital for observation under Section 25, Mental Health Act. He was then detained for treatment under Section 26, then regraded to informal status on 12th August, and discharged on 17th August, 1964 at which time he stated that he was willing to receive after-care visits. The mental health service received an after-care notice from the hospital on 31st August and the patient was visited by a mental welfare officer at the new address given.

The door was opened by a young woman who was reluctant to give the officer any information about the patient. The officer left a card for the patient with the request that he contact the officer at his convenience. Subsequently the patient called at the mental health service and stated that he did not wish to be visited by a mental welfare officer. In view of this no further visits could be made.

Case No. 2.

Male, born 1929. Attended special school until the age of 15 years when he was allowed to leave to get employment, but was unable to hold any job for more than a few weeks.

In March, 1945 he was referred to the Lancashire Mental Hospitals Board as being likely to benefit from residential care under the Mental Deficiency Acts. He had already had several Court appearances for various offences and in April, 1946 he appeared on a charge of breaking and entering to which he pleaded guilty. He was committed to a hospital under the Mental Deficiency Acts. In March, 1947 he was granted home leave during which he absconded and was not apprehended until about five weeks later.

Over the next two years he had a few successful holiday leaves at home and in December, 1949 he was allowed home on long licence.

In January, 1950 the mental health service employment officer was asked to find work for the patient and this was arranged from 9th January. He appeared to settle down well and to be quite happy in his employment but on 27th February his mother reported to the mental welfare officer that he had left home five days earlier for no apparent reason and she had been unable to trace him. He was eventually returned to the hospital on 7th March, 1950.

In November, 1951 he was transferred at the request of his mother to an institution nearer Liverpool. In August, 1952 he was given holiday leave and, at his mother's request, work was again found for him as a result of which he was granted long licence. Less than a month later his mother again reported that he was missing from home but he

returned three days later and was allowed to resume employment. Three days later he again absconded and when eventually found he was returned to the institution with his mother's agreement.

On 12th August, 1953 he absconded from the institution and was brought before the Liverpool City Magistrate's Court to answer several charges of larceny. Following information to the Court by the senior mental welfare officer the patient was returned to the institution.

On 23rd March, 1955 the mental health service was informed by the Liverpool police that the patient had absconded from the institution on 1st March and surrendered himself at the main Bridewell on 11th March when he admitted five offences of breaking and entering and stealing. He was returned to the institution.

In October, 1957 he appeared at the Liverpool Crown Court to answer several charges of larceny and one of arson, committed after he had again absconded from the institution. The Recorder asked the senior mental welfare officer who was in Court to convey to those concerned that in his opinion the patient should never be allowed out even for a holiday as his deplorable record proved that he was incapable of coping adequately and behaving in a normal manner in the community. He was again returned to the institution and the same month transferred back to the mental deficiency hospital to which he had first been committed.

Following an application to a Mental Health Review Tribunal by his father the patient was discharged by the Tribunal in January, 1962.

In May, 1962 he left home and went to live in a common lodging house but his mother did not report this and it was not until the mental welfare officer's next visit in June that the mother told the officer and also mentioned that he had taken money from his own home and that of his sister. She also stated that he was now in prison on remand for breaking and entering and that she wanted him to be sent back to hospital because she could no longer accept responsibility for him.

On 6th July, 1962 he was admitted to a hospital for the subnormal on a Hospital order under the Mental Health Act, medical evidence being that he suffered from subnormality and psychopathic disorder.

In February, 1963 his application to a Mental Health Review Tribunal was heard but the Tribunal did not order his discharge. In June, 1963 the responsible medical officer informed the local authority that the patient had been discharged from his order of detention and had agreed to remain in the hospital on an informal basis.

On 22nd July, 1963 a telephone message was received from the hospital to the effect that the patient had not returned from two weeks holiday leave and would be discharged if he had not returned by 28th July.

On 30th July, 1963 a letter was sent from the hospital to the mental health service confirming that the patient failed to return from holiday leave and had been reported as missing from home. The letter also stated that since then the only news of him had been an enquiry from the Liverpool police who were charging him with obtaining National Assistance under false pretences but that this was a minor offence for which there was no question of placing him under a further order of detention. His name had therefore been removed from the hospital books and his mother had been advised to contact the mental health service if she felt she needed further advice about the patient.

On 22nd August, 1963 his mother informed the mental health service that the patient had surrendered to the police on 10th August and had been remanded to prison.

On 23rd August, 1963 patient was sentenced to three months imprisonment for larceny and again to three months imprisonment in November, 1963.

Case No. 3.

Male, born 1943. First brought to notice of mental health service in May, 1961 by prison medical officer who reported that patient was on remand in prison and that the medical officer intended to report to the Crown Court that a hospital order should be made sending the patient to a hospital for the mentally subnormal. The patient was on remand for larceny, malicious damage and wounding with intent. His mental age was reported to be 10 years 3 months, I.Q. 70. He was admitted to hospital from the Crown Court on an order under the Mental Health Act on 7th June, 1961.

His history showed that he had committed repeated offences of stealing, wounding and malicious damage and was prone to fighting. He had failed to respond to probation, approved school and detention centre. He had attended residential and day special schools.

At Christmas, 1961 his mother and stepfather requested holiday leave for him but this was not granted. The hospital reported at that time that he was a rather headstrong youth who required firm discipline. He was granted holiday leave at home at Easter, 1962 when he appeared in court and pleaded guilty to stealing a loaf; he was conditionally discharged for a period of 12 months.

Following renewal of authority for detention in June, 1962, application was made on his behalf to a Mental Health Review Tribunal which did not order his discharge.

From that time he was given home leave on a number of occasions until August, 1963 when his next application to a Tribunal was

heard. The Tribunal discharged the patient and he returned home. His stepfather was confident that work could be found for the patient, although he himself had not worked for two years and a younger brother was also unemployed. In addition, the mental welfare officer reported that the home was dirty, untidy and poorly furnished.

On an after-care visit in September, 1963 the mental welfare officer reported that the mother was seen and stated that patient was working and earning an average of £9 weekly. He was said to be well behaved, keeping good hours and to have given no trouble since discharge from hospital.

In October, 1963 the mental welfare officer was unable to gain access to the house although someone was heard inside.

On 5th November, 1963 the stepfather was seen by the officer on an after-care visit. The stepfather was not co-operative and stated that the younger brother had been unemployed for four weeks, was keeping late hours and "will not listen to reason". There were no complaints about the patient. On 18th November, 1963 a non-effective visit was reported by the mental welfare officer. On 19th November, 1963 the police informed the mental health service that the patient was in custody to appear in the Crown Court on a charge of alleged rape against a sixteen year old girl. He was subsequently found guilty of attempt to rape and sentenced to three years imprisonment.

Case No. 4.

Male, born 1935. Referred to local health authority in January, 1949 as ineducable (Sec. 57(3) Education Act, 1944) after several years at a special school where he made little progress. The report stated that he was an epileptic with frequent fits. Statutory supervision was arranged by the local health authority as his parents were able to care for him and were fond of him.

By March, 1950 it was reported that his fits were infrequent and of a minor nature and the parents asked the mental welfare officer if efforts could be made to find employment for the patient. Arrangements were made for the mental health service employment officer to interview him but the patient refused to agree to this; preferring to find casual odd jobs for himself.

In March, 1951 the employment officer visited the patient's home by request to discuss the possibility of finding work for him, but on this occasion his mother stated that she did not think he was capable of employment and that she did not wish to disturb him as he was still in bed. The time was 11.30 a.m.

Over the next seven years no adverse reports were received and the patient continued in irregular casual employment but in February,

1958 his mother reported that he had recently returned home in a very aggressive mood after drinking with some friends. Later that month he was arrested on a charge of being drunk and disorderly by two policewomen, one of whom he struck and was so violent that he had to be placed in irons at the police station. He later appeared in Court charged with damaging windows in a police cell and a public house and assaulting a policewoman in the execution of her duty. He was remanded for medical report with a view to certifying him under the Mental Deficiency Acts and a vacancy was made available at a State hospital. On re-appearing for sentence, however, he was defended by a solicitor and after a lengthy hearing he was placed on probation for three years.

There were no adverse reports until September, 1958 when the mother of a defective girl under statutory supervision reported that her daughter had left home to stay with the patient, whom she intended to marry. The mental welfare officer managed to persuade the girl to return home and at the same time learned that the patient had been charged with shop-breaking and assault occasioning actual bodily harm. He subsequently appeared before the Crown Court and was ordered to be detained in a State hospital on 22nd October, 1958. He was transferred to another State hospital in April, 1960.

In May, 1961 and August, 1962 it was reported that his father had made application to a Mental Health Review Tribunal for his son's case to be considered but the Tribunal did not discharge the patient. On both occasions a home circumstances report was made by a mental welfare officer who was told by the parents that if the patient were discharged they intended moving to another area. Both parents were working.

In July, 1963 the father again applied to a Tribunal and on this occasion the parents told the mental welfare officer that they intended buying a shop so that they could keep the patient under constant supervision. The patient was seen by the Tribunal in October, 1963 and discharged. He agreed to accept after-care from the local authority but the mental welfare officer was not able to gain access to the house until December, 1963 when the patient was seen alone, his parents not being available. The mental welfare officer continued to visit regularly but only occasionally saw either of the parents who in any event were reluctant to discuss the patient.

In September, 1964 the mental health service was notified by the police that the patient had been remanded on a charge of grievous bodily harm. The woman he attacked had sustained serious injuries and was in hospital where she remained unconscious. A month later the woman was still unconscious and the patient was further remanded. It was stated that after drinking together the patient took the woman

home and later called an ambulance. The woman was found to have head injuries.

In December, 1964 the woman was reported to be still unconscious and the patient was convicted at the Crown Court of causing grievous bodily harm with intent. He was committed to a State hospital on an order under the Mental Health Act without limit of time.

From these brief histories it is evident that great care needs to be taken in deciding whether or not certain patients are fit to be at large in the community. It is always easy to be wise after the event but it may be that greater emphasis needs to be placed on a patient's history and on the social and clinical findings than on a straight question of whether or not a patient needs to be detained at a particular time. This applies particularly in the case of subnormal and psychopathic persons over the age of 21 years who cannot be admitted compulsorily to hospital under the Mental Health Act for treatment on a long-term basis unless they commit an offence.

Follow-up of Mental Health Review Tribunal Cases

Full details of four unsatisfactory cases have already been given, but it is important to record that such cases are in the minority.

In relation to Mental Health Review Tribunals we have now collected information regarding 92 patients from Liverpool on whose behalf application was made to Tribunals on 108 occasions. Four applications were withdrawn before they could be heard by a Tribunal.

Out of the total of 104 applications heard there were 26 discharges (involving 25 patients) and 78 applications for discharge were rejected.

Of the 25 patients discharged:—

Seven (28 per cent) returned to the community and have managed to maintain a satisfactory way of life.

Five (20 per cent) have remained in the community but are not considered to have adapted themselves successfully.

Five (20 per cent) have failed to adapt themselves and have been returned to hospital on a compulsory basis.

Four (16 per cent) have failed to adapt themselves and have been dealt with by other legal process.

Two (8 per cent) have remained in hospital on an informal basis.

Two (8 per cent) have been lost sight of.

Although a small total number is involved it can be seen that over half are not considered to have been successful discharges.

NEW HALL.

Before the activities at New Hall are detailed under the various headings, viz.: junior and senior training centres, workshops, hostels, etc., it will be useful to have a picture of the project as a whole, showing progress made and the complete plan. This can be shown in tabular form thus:—

	Open at 31.12.64 or about to open		Expected to be open in 1965 (incl. Col. 1)		Expected to be open in 1966 (incl. Cols. 1 & 2)	
	Bldgs.	Accom.	Bldgs.	Accom.	Bldgs.	Accom.
Hostels	7	77	13	150	13	150
Workshops	3	180	1	300	4	300
Adult training centre	1	60	1	60	4	240
Junior training centre	2	120	2	120	2	120
Special training centre	—	—	—	—	1	50
Occupational therapy unit	1	60	1	80	1	100
Central kitchen	1	400	1	700	1	850
		(Number of midday meals served)				
Shop & Social centre	1	—	1	—	1	—
Swimming bath	1	—	1	—	1	—

The New Hall estate (formerly Fazakerley Cottage Homes) was allocated to the Health Committee in 1959. It had been a “going concern” since 1878 and nineteen large houses, a vast hall and several other buildings had all been in use up to the time of transfer and were, on the whole, structurally sound. With a waiting list of over 300 for training centres priority was naturally given to this aspect of the service and six of the homes were adapted for that purpose.

From the first, however, New Hall was conceived as a multi-purpose project. The Committee had in mind the new Mental Health Act’s emphasis on care in the community and it was realised that the size of the estate and the fact that buildings were available for adaptation would give the City a unique opportunity to progress quickly.

Perhaps progress has not been as rapid as was then thought likely: nevertheless, at the end of 1964, there are seventeen buildings extensively renovated and adapted and 500 mentally disordered people can be occupied daily. By the end of 1966 the numbers should be 25 (including one entirely new building) and 850 respectively.

Two features not originally envisaged have been introduced—the building of a sheltered workshop at the north end of the estate and the conversion of a sick-bay for additional training accommodation. It will be noticed that there are several communal projects. The central kitchen and dining room will eventually cater for over 800 people, non-resident as well as resident, and the shop and social centre and swimming bath will also be for the use of all these people.

There is no point in avoiding the fact that the size and scope of New Hall and its centralised activities make it in some respects similar to a hospital and inevitably gives rise to the suggestion that an institutional atmosphere may develop there. The Committee has been mindful of this and is taking every step to avoid it.

TRAINING

Junior Training Centres

Though much training is now centred at New Hall the three centres which were in existence before New Hall was opened are continuing and now take 200 children. All three—Princes Road, Garston and Dovecot—are housed in buildings built for other purposes and it is hoped to replace them by new centres within the next few years.

Altogether, including the New Hall centres, 320 children now attend daily and as there are less than 400 children notified as mentally subnormal, provision is reasonably adequate as to numbers. Natural increase is being provided for at New Hall, where buildings now in use as workshops can revert to centre use according to demand when the new purpose-built workshop is completed.

A reminder about types of children attending may be useful. They are so severely subnormal that they are not able to make progress at school. They cannot be taught to read or write with real understanding, and subjects such as history and geography are a closed book to them. Thus training is practical not academic. It is carried on in groups small enough for individual progress to be carefully watched, but improvement sufficient to justify re-entry into the educational stream is rare—no cases of this kind have occurred during the year.

Limited horizons notwithstanding, these children will repay the training by better habits, increased awareness and self-reliance. They are capable of loyalty, humour and devotion and they have that quality of not being sorry for themselves, which so many normal people lack.

Senior Training Centres

Training does not cease at the end of childhood. However backward the individuals, they are physically matured, and there is a need to assess their possibilities in the adult world. Thus adult training has been centralised at New Hall where there are, or will be, excellent facilities for assessment, training and sheltered occupation.

The children who have been training in the junior centres are transferred at age 16, but there also enters a new stream of mentally subnormal people at this age, for the first time—those who have attended a special school up to leaving age. It is important to realise that a proportion of special school leavers are so handicapped mentally that they are unlikely to be able to maintain competitive employment and need the support that the mental health service can give. There were, in fact, 147 leavers referred during the year, many of whom will need such support.

Only one adult training centre is provided at present, taking 60 people, but every entrant is regarded as a potential graduate to a sheltered workshop and thus the necessity for more places is bound up with the vitally important question of places in workshops.

Sheltered Workshops

The contrast between the present workshops, temporary as they are, and the arrangements of years gone by is striking. Instead of 50 rather purposeless people working desultorily in a room at Princes Road centre there are now 180 at New Hall engaged in well directed activities, earning a little money and, it is no exaggeration to say, transformed into busy and happy people, coping with tasks previously thought to be beyond them.

Transfer to New Hall, with its open space and fresh air, has done much, but a great deal of credit must be given to the staff who have engendered an atmosphere of confidence and purpose.

This progress makes it the more interesting to plan for the future and the prospect of a specially built workshop with greater numbers, more variety of work and more room for assessment and research is eagerly anticipated.

The year's work was disrupted somewhat by a fire which damaged one building so severely that it was out of use for eight months. The Education Department very kindly put a building at our disposal but lack of space led to a slight reduction in total output. Nevertheless, £5,274 was earned and distributed in full to the workers, using an incentive system based on factors such as attendance, application, effort and behaviour.

Outside employment was found for seven workers and the fact that all have been able to hold their jobs is directly attributable to the regular training and regimen at New Hall. This is a great triumph for people who are so severely handicapped, but it is no less an achievement for some to be able to hold their own even in the sheltered employment.

“Frank” may be taken as an example—a mongol of 18 who attended a junior centre from the age of six. Coming from a good home he was well-socialised but quite unable to guard against common dangers. As he grew older he remained friendly and affectionate at the centre but became increasingly wilful at home. In 1962 the parents were distracted by his temper tantrums, culminating in attacks on his mother, and they asked for his admission to hospital. He was placed in the “most urgent” category.

At 16 he was transferred to New Hall—unable to read and write, apparently without any manual skills and still causing his parents the utmost anxiety. Almost immediately his behaviour improved, he proved amenable to the discipline and enjoyed the sense of being treated as a grown-up. The parents saw his capabilities being developed by regular work and perhaps they then realised he need not be treated as a baby, perhaps, in fact, this was the root cause of the domestic difficulties. From that time until the present not only has he continued to work well but he has given less trouble at home. “Frank” still needs close supervision, he could not possibly succeed in open industry, but he is busy and happy, takes home a small weekly wage packet and rightly feels he is a man of responsibility.

Processing for industrial firms has continued to provide the bulk of the work, e.g., stripping cable, assembling box tops, etc., and excellent relations are maintained with the firms involved. Recently one firm, on giving a pay rise to their own staff, increased the payment for the New Hall work pro rata.

Employment

As usual the senior mental welfare officer who acts as employment officer, has had a busy year, the most gratifying feature of which has been the placing of people from the sheltered workshop. Altogether jobs were found for 54 persons.

HOSTELS

Much time was devoted during the year to preparing for the opening of the New Hall hostels. The background to these has already been described. Seven were ready for occupation in December, 1964 and the remaining six are scheduled to be completed in 1965.

The “cottages”, built nearly 80 years ago as homes for poor children, have been extensively adapted to take twelve residents each, and accommodate a house-parent in a self-contained flat on the premises. There are no gimmicks but plenty of comfort—in fact they are simply designed to have the facilities of an ordinary home.

As we have seen they form only part of the New Hall project and reference has been made to centralised facilities. So far as dining

is concerned there is no difference between the central kitchen and “canteen” at New Hall and similar facilities at, say, a factory. All hostel residents not employed outside will be attending one of the day centres or workshops on the same estate and it is natural that they will take their mid-day meal with their fellow workers who come in each day to the centres.

The adaptation of the old church hall, including provision of an additional floor, was the largest job within the capital scheme. This building is now the dining and recreation centre for everybody at New Hall. It has enormous possibilities for communal activities—dances, cinema and theatre shows, Christmas parties, etc.

Eventually 150 residents will live at the hostels. Most will almost certainly be subnormal adults, but it is not proposed at this stage to be too dogmatic about the use of the accommodation. All local authorities have much to learn about the demand for hostels and the methods of running them; the lines between the need for hospital care and hostel residence are not clearly drawn and administering an “open-door” system for mentally disordered people presents many problems.

Next year’s report should be more illuminating on these points: meantime comment about residents must be limited because the first of them were due to arrive only in the first week of 1965.

They consist of patients who have been in hospital (some for many years) together with a few who have been living at home under unsuitable conditions or who have no real home.

The complement will be built up gradually and it is important to leave places for emergencies—in particular for those who may become “deprived” by the death or incapacity of parents or relatives. It is felt that in time it will be one of the main functions of hostels to accommodate such deprived people who, in the past, though perfectly capable of living with support in the community, have had to spend the remainder of their lives in hospital.

If the mental welfare officer can assure parents that when they are gone the mentally subnormal child they have nurtured with such love will be able to live a full life in a hostel, it will remove a great deal of anxiety from their minds.

MENTAL HEALTH CENTRE, JOHNSON STREET

This centre, which has now been established three years, has continued its useful work as a rehabilitation unit for mentally ill people. Its objects are different from those at a training centre where people are likely to attend indefinitely—here the aim is to restore the pattern of social life and train for re-employment. It is not possible to simulate industrial conditions, but tasks are organised to help patients acquire

good work habits. Their capabilities can be assessed and they can be referred to Ministry of Labour rehabilitation units or directly for employment.

The centre has been particularly successful in infusing a social sense into people who make contacts with difficulty or live a solitary life, and who benefit from the varied range of social activities—outings, visits, films, discussion groups—all designed to widen their outlook. The weekly evening social, attended also by relatives and friends, serves this purpose as well—those who do not mix easily find they begin to overcome their limitations in a familiar and secure situation. A large party spent a week at a holiday camp at Morecambe and took part in all the camp activities.

HOSPITAL PATIENTS

Mental health community work entails a close connection with hospitals; in particular the mental welfare officer has a statutory part in the admission of mentally ill patients where compulsion is necessary.

One of the objects of the Mental Health Act was to minimise such admissions but, in fact, they have actually increased in Liverpool. Thus emergency admissions (Section 29) during the last ten years have been as follows:

Under former legislation						Under Mental Health Act			
1955	1956	1957	1958	1959	1960	1961*	1962	1963	1964
775	779	773	865	851	755	944	1,117	1,083	959

*Mental Health Act operated from 1st November

The Committee had these figures (up to 1963) before them early in the year and the Medical Officer then reported that the chief reason for the increase was probably that general practitioners invoke the emergency procedure because they find themselves unable to obtain informal admission of patients without delay. A contributory factor is the rapid turnover at hospitals; by the time a patient has been admitted the “emergency” may be passed and his condition no longer warrant detention. Thus he may be made informal and be discharged or discharge himself so quickly (often to the conditions which precipitated the illness) that after-care cannot hope to complete the process of rehabilitation and compulsory admission again follows.

Only by a common understanding and policy can the intention of the Mental Health Act be realised and much was done during the year to tighten the links with the hospitals and “educate” the general practitioners.

The position of the latter is very important in this connection. It is not perhaps generally realised that he is entitled to a fee of £4 each time he examines a patient (including one on his own list) "with a view to compulsory action being taken"; 188 doctors received a total of £1,868 for this service in 1964. Other compulsory sections of the Act in which a second medical recommendation is necessary entailed the services of seven approved doctors and specialists. The fee payable to them is £4 12s. 6d. and the total amount paid during the year was £1,316.

There is a strong feeling among the mental welfare officers who deal directly with the general practitioners that the procedure is less satisfactory in practice than in theory. Some doctors try to lean too heavily on the mental welfare officer and do not seem to realise that it is their recommendation which authorises the emergency admission.

In the hospital admission of mentally subnormal people, Section 29 action is rarely necessary and most admissions are informal. The mental health service acts as the agent of the Regional Hospital Board in recommending admissions and determining urgency. The waiting list, which has been such a contentious question, is not so high as formerly but at the end of the year there were 61 patients awaiting admission, of whom 44 were in the highest urgency category.

A new factor has arisen with the opening of the mental health service's own hostels. Hitherto hospital admission has been the only course open for some mentally subnormal people when their families have ceased to support them, but now it must be considered whether they are suitable for a hostel. This is a great step forward, for not only does it offer the chance of continuing life in the community but it relieves the anxiety parents have always had about the future of their mentally subnormal son or daughter when they are no longer there to give them support.

Another relief to parents is provided by short-term care. This was arranged for 202 people—151 in hospital and 51 in voluntary homes.



di: Aids for Handicapped.

d] This special bathroom was constructed by dividing part of
er the kitchen in a local authority dwelling. A low bath, handrails and
fi lifting apparatus have made this patient completely independent



Yellow Fever Vaccination

AMBULANCE SERVICE

In commenting on the various aspects of the Ambulance Service during the year priority is given to the continued rise in the number of patients conveyed. This increase has been progressive over many years and is in the main due to the increase in the number of new clinics continually being opened.

With the constant increase in the number of calls made on the ambulance service it is imperative that utmost care should be exercised at all times to eliminate all unnecessary use of the service. One of the biggest difficulties is the large number of patients being conveyed to distant hospitals when the possibility is that the necessary treatment or diagnosis can be obtained nearer home.

CASE LOAD OF PATIENTS

The total number of patients carried during the year amounted to 272,475, an increase of 2,728. It should be noted that in 1963 the service carried 4,839 handicapped persons who are now being conveyed by the Handicapped Persons Transport Service. Credit must be given both to the ambulance control staff and the hospital transport officers for the efficient co-ordination of the journeys undertaken for patients.

Ambulance vehicles travelled 1,030,802 miles using 43,716 gallons of petrol and 11,895 gallons of diesel oil. When compared with 1963 this shows an increase of 2,598 miles with a reduction of 1,873 gallons of fuel. It is pleasing to note that statistical records kept on the individual fuel consumption of vehicles are justified by these savings.

COMMUNICATIONS

To meet the continual demand for ambulance transport the communication equipment was altered to a more modern type of "Key and Lamp Unit" and the number of sets increased from six to twelve. This enables calls to be attended to much quicker. In addition a "Robophone" answering machine was introduced and all cases not requiring attention until the following day are stored on tape and translated at a convenient time. Staff are thus enabled to attend to immediate requirements much quicker.

One of the biggest problems experienced throughout the year has been the lack of public telephones in working order caused by vandalism. This has caused considerable concern both with maternity cases and emergencies and the caller has on many occasions had to travel a considerable distance before finding a telephone in working order. The problem can on occasion be overcome during the daytime by the number of private telephones available. However, the main difficulties occur

during the night and early morning and a stranger to the City has on many occasions been unable to tell the service the precise location of an accident because of the distance travelled from the scene before finding a public telephone in working order. This has meant more than one ambulance being sent to search for the accident and deal with a single incident and has led to unnecessary delay coupled with a considerable danger to life.

CADET TRAINING SCHEME

The year 1964 will be remembered for the introduction of the Cadet Training School which was the first to be introduced in the country.

Originally, and after careful consideration, it was decided to introduce the cadet training school to obviate many of the difficulties in recruiting the right type of person into the service, the object being to produce a more experienced ambulance driver, before allocation to full operational duties, and to give the ambulance service in future years a better type of potential officer. The previous method of teaching in the service was unsatisfactory as staff recruited became fully operational after an initial training period of two weeks with little knowledge of the ambulance service and its many important tasks. It is considered that only well trained staff should be allocated to handle sick and injured people and that it is essential to train them to a high standard in order to produce men of such calibre as to be an even greater credit to the service. Also with initially well trained personnel, valuable time would be saved by ambulance control deploying work to disciplined staff with a sound knowledge of the City, the location of each hospital and type of case dealt with, and an assurance that patients would be handled correctly. In addition it gives cadets the opportunity of working in the various sections of the service and so gain valuable experience and an appreciation of the responsibilities entailed.

The Liverpool service has an average labour turnover of approximately twenty drivers each year and the introduction of the motor industry to Liverpool placed a further burden on recruiting. In view of these problems it was considered realistic to recruit young men of 17-19 years of age, annually in groups of twelve and, following consultation with the trade unions, pay them the appropriate rates of pay based on an ambulance attendant unqualified. The cadets work to a prepared syllabus over a period of eighteen months after which they become fully operational driver/attendants on the appropriate rates of pay. They are trained up to the standard of the Institute of Ambulance Personnel and the first group of cadets will sit the intermediate examination in April, 1965.

Details of emergency calls received for 1964 are as follows:—

1964	(A)	(B)	(C)
Month	Accident/ Emergency Calls	False calls with good intent	Malicious False calls
January ...	1,892	106	7
February ...	1,674	101	9
March ...	1,948	127	10
April ...	1,856	131	17
May ...	2,059	112	22
June ...	2,068	134	11
July ...	2,087	119	12
August ...	2,089	142	10
September ...	1,975	119	19
October ...	1,980	144	15
November ...	1,813	122	9
December ...	2,125	168	11
Total ...	23,566	1,525	152

(1) The totals shown in columns (B) and (C) are to be taken as *being included in column (A)*, but are shown thus for statistical purposes.

The staff of the service consist of:—

1 Chief Ambulance Officer
 1 Assistant Ambulance Officer
 1 Senior Controller
 4 Controllers
 4 Assistant Controllers
 4 Telephone Operators
 6 Hospital Officers
 3 Station Officers
 2 Clerks
 1 Storekeeper
 12 Shift Leaders
 124 Male Driver/Attendants
 13 Female Driver/Attendants
 1 Foreman Mechanic
 1 Chargehand Mechanic
 5 Mechanics
 3 Apprentice Mechanics
 8 Labourers
 19 Cadets

The vehicle fleet now totals 74, consisting of 22 diesel ambulances, 20 petrol ambulances, 26 brakes and six sitting-case cars. At the end of 1964 the ages of the vehicles were as follows:—

Age of vehicles in years	Under 1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	Over 10
	1	12	10	11	8	8	—	5	11	5	3

OCCUPATIONAL THERAPY

Once again the occupational therapy section has been handicapped by staff shortage. The establishment was increased to fourteen to provide staff for the new unit at Longmoor Lane but again the general shortage of occupational therapists has made it impossible to employ the full number required; at the end of the year the staff numbered nine. The opening of a third occupational therapy unit and the preparation of a fourth to be started during 1965 has increased greatly the amount of administrative work performed by the senior staff. As there are only two other domiciliary therapists, home visiting is as a consequence being neglected. This can only be remedied by an increase in the number of domiciliary therapists during 1965. The central area of the City was without a therapist from January, 1964 until August, 1964 and shortly after this the member of the staff covering the north of the City left and had not been replaced at the end of the year. The Rehabilitation Unit, Rumney Road, has been staffed by two therapists throughout the year.

During 1964 an occupational therapy student from a local training college spent two months in the department studying the organisation and running of the domiciliary service preparatory to carrying out similar work in Northern Ireland. It is expected that more students will spend part of their training in the future on similar lines.

Domiciliary staff have again been extremely busy in the field of aids and adaptations. The trend of work is increasing in this direction as where traditional therapy is the need, it is usually preferable for the disabled person to attend one of the day centres rather than be visited at home.

TRANSPORT

Transport, often a limiting factor, has been greatly improved with the acquisition of several vehicles fitted with hydraulic lifts enabling patients to remain seated in their own wheelchairs throughout the journey from home to unit. Some of the most severely handicapped are no longer barred by transport difficulties, and it would be possible to treat more people if more vehicles were available.

At the Rumney Road Unit work has continued upon the lines described in previous reports. The section has become increasingly self-supporting as more aids and adaptations, required by the handicapped in their homes, have been devised and made by patients at the unit under the direction of the staff. Bath-seats, footrests, trolleys, ramps, etc., have all been produced for the handicapped by the handicapped, and, with the employment of a male technician from November, 1964, it is hoped that there will be further developments in this sphere.

GADGETS

One very successful gadget devised by a member of the staff is a tin-opener which can be used successfully by a one-handed person. It is not difficult to imagine how much more variety can be introduced into the diet of a hemiplegic person often elderly and living alone if tinned food is readily available.

Another "minor miracle"—to quote a grateful patient—which has been found increasingly useful has been the tubular steel chair mounted on casters (Jones-Bonson chair). This is much more manoeuvrable than the standard indoor wheelchair and therefore provides a means of transport in an environment where nothing else would fit.

CONTRACTS

Due to difficulties in the supply of materials for the making of rubber link mats, this contract was not applied for in 1964. However, many orders from 1963 remained to be fulfilled and this provided work for many of the male patients. The contract with the City Lighting Department for chamois leather mops was renewed and this provided valuable work for patients in their own homes, often supplementing traditional occupational therapy.

SOCIAL EVENTS

During 1964 several social events were organised. In June three coaches carried mentally and physically handicapped to Prestatyn where another day, blessed by beautiful weather, was passed at the Lido, where once again the manager and staff went out of their way to make the day a happy one for all concerned.

At Christmas the annual party was held at Rumney Road. Regular patients at the unit are joined on these occasions by members of the Wheelchair Club which meets every Wednesday evening at this unit for a social evening.

Carol Service for Handicapped

At Christmas a Carol Service for the Handicapped was organised at Liverpool Cathedral with the enthusiastic co-operation of the Dean and his staff. Two lifts were made available and by this method about 200 handicapped and helpers were able to take part. Members of the choir of a local boys school led the singing and the Dean gave a short address. It is hoped that this will become an annual event.

Holidays for Handicapped

Twenty-six physically handicapped patients, many confined to wheelchairs, were taken on holiday to Dinas Dinlle, near Caernarvon. The hotel is ideal for the physically handicapped, being built all on one level. The proprietors were extremely helpful and being qualified nurses

they had anticipated the needs of the handicapped and provided various aids such as bathrails, rails around toilets, commodes, etc. They also arranged evening entertainments in which the guests participated with enthusiasm. During the day, trips were organised to Snowdonia, Caernarvon, etc., by means of the Health Department vehicle. Those who were not included on any particular day were very content to sit on the beach or in the garden, chatting and writing innumerable post-cards. Valuable assistance was given to the two occupational therapists in charge of the party by the two drivers and by three assistants employed for the holiday period. These worked at the occupational therapy unit during the previous week thus getting to know the patients and learning how to assist with lifting, etc. During the actual holiday they were invaluable.

HOUSING

Co-operation between the occupational therapy section and staff of the Director of Housing has led to the successful rehousing of a number of physically handicapped people or the alteration of their homes to enable them to become more independent. One such family had a daughter in her early twenties confined through poliomyelitis to a wheelchair. She had been to a residential training establishment and on discharge had been considered suitable for the allocation of a motor vehicle which would enable her to take outside employment. However, there was no room at her home for a garage, nor could she have had a bedroom, bathroom or toilet on the ground floor. The family was eligible for three-bedroomed accommodation and eventually a house was found with two living rooms downstairs, one of which could be used as a bedroom, and possessing in addition a large kitchen which could be divided to give a smaller kitchen and a combined bathroom and lavatory plus sufficient room at the side of the house to allow a garage to be erected. In addition to the major structural alterations required, width of doorways, height of light switches, ramps, hoists, power plugs, etc., had all to be taken into consideration, but eventually the family took up residence and the handicapped girl was able to lead an independent life.

Another family consisted of father, mother and six children, three of whom were of school age. Two of the children were confined to wheelchairs with a third likely to be handicapped in a similar way in the near future. As ground floor accommodation for three wheelchairs was necessary, it was impossible to supply this in existing Corporation property, but eventually it was agreed to join two adjacent dwellings, namely a house and a two-bedroomed ground floor flat. The handicapped children would sleep in the latter, with their parents in the adjacent living room, whilst the remaining children would sleep in the house. The whole family would use the living room and kitchen in the house whilst the bathroom in the flat could be modified for the use of

the children in the wheelchairs. In the original accommodation it is doubtful if the children could have remained at home very much longer as they had to be carried everywhere. Setting aside the cost in human happiness it is obviously more economical to keep the children at home rather than in hospital. Such arrangements can, however, run into difficulties when Liverpool residents are moved into areas where the health and housing authorities come under different local authorities and the unfortunate handicapped persons may have to pay for the necessary structural alterations. This policy seems likely to lead to Gilbertian situations and it is felt that further discussion is urgently needed.

CASES

Mr. B. was referred from the Southern Hospital as being in need of occupational therapy for his shoulder which was stiff and painful and extremely resistant to physiotherapy. Mr. B. was obsessed by work, he wanted to be busy every moment but felt that attendance at an occupational therapy unit would mean spending too much time away from his wife who suffers from severe asthma. Accordingly he was shown how to do stool seating at home where the movement of drawing the cord across the stool gave exercise to his shoulder. He is also making chamois leather mops and the money he obtains for these is paid back, enabling him to buy the stools. Mr. B. himself is extremely satisfied with the arrangement and frequently speaks to the occupational therapist of the great benefit he derives from these employments.

Mrs. L. is a 76 year old widow who is severely handicapped by rheumatoid arthritis. She lives alone but due to her increasing tendency to fall it was doubtful if she could continue to live at home even with the assistance of a home help, and the meals on wheels service. However, she was supplied with a Zimmer Walking Aid and a trolley, the latter doing duty as a walking aid as well as carrying everything from a coal bucket to a cup and saucer about the house. A long-handled pick-up aid has enabled Mrs. L. to pick up things previously beyond her reach, and these gadgets have postponed for a little longer the question of giving up her home.

Mrs. A. is severely handicapped with rheumatoid arthritis. Her fingers, wrists and shoulder joints are all affected and she has had osteotomies of both hips. When first visited she was sitting in an outdoor wheelchair as this was the only way in which she could find any comfort. She had not walked for many months but the doctors agreed that an effort should be made to get her on her feet again. Two occupational therapists assisted Mrs. A. to her feet but her first steps were accompanied by loud creaking noises coming from her hips and both staff and patient were soon exhausted. The exercises were continued and the patient was supplied with a "Jones-Bonson" chair previously mentioned.

On this she started to push her way around the ground floor and gradually strengthened her legs until eventually she was able to leave the chair and walk with two sticks. Mrs. A. still had difficulty in rising from a chair but this problem has been solved by the provision of a chair with an "ejector" type seat. A shower is being installed downstairs as a further step towards her independence.

WELFARE SERVICE

RESIDENTIAL ACCOMMODATION

Previous reports have referred to the steps taken with the object of implementing the Ten-Year Development Plan in which is incorporated the closure of Westminster House, its replacement by a number of small establishments, and also the building of a number of homes to cope with the very long waiting list of those needing residential care.

New Homes

By the end of 1964 the stage had been reached, in regard to the building of four new homes, of an application to the exchequer for loan sanction. As soon as the necessary funds become available an early start on the buildings will be possible. Two of the homes, at Fazakerley and Speke, will be used in connection with the "run-down" of Westminster House, and the other two, at Croxteth Drive and Aigburth Drive, will be new provision.

In order to streamline the very big programme decided upon by the City Council an important step was taken during the year. This was to continue to use the services of a group of architects who were engaged in the work of designing residential establishments for the local authority, and also to use a number of existing and recent schemes as prototypes during the fulfilment of the programme. The approval of the Ministry of Health having been received steps were also taken with the object of transferring to the Health Committee a number of sites in the possession of other committees so as to provide for twenty projects during the coming years.

The effect of these successful efforts to speed up the administrative procedures is that it is now likely that a start will be made in the latter part of 1965 on a further four projects. These will be in the West Derby, Speke, Woolton and Toxteth Park areas of the City, two again being associated with the "run-down" of Westminster House and two being new provision.

The new home known as Lathbury House, erected in the spacious grounds of Croxteth Lodge, was completed during the autumn and the first of the 52 residents which it will accommodate entered at the end of November. When Lathbury House came into commission the number of places available for residential accommodation in the Council's establishments reached 1,300. A large number of Liverpool residents, either elderly or handicapped, is being maintained under agreed financial arrangements in homes administered by voluntary bodies. This has always been a very welcome supplementation to the number of places available in the homes belonging to the local authority.

Holiday Scheme

The holiday home at Southport known as "Westdene" again proved to be very popular during the summer months, and a total of 495 elderly persons spent a holiday there, mainly of two weeks. Of the total number, 338 came from the department's own establishments in Liverpool and 157 from their own homes. The programme of upgrading this establishment proceeded and as well as the provision of other amenities the central heating (now oil-fired) and domestic hot water supplies have been improved. A lift will be installed early in 1965.

Christmas Aid

It is very pleasing to be able to report that once again at Christmas time a good deal of practical benevolence was shown towards elderly persons. Apart from arrangements which were made directly by public-spirited citizens and voluntary bodies a good deal of work was also done in co-operation with the local authority. For example, a cinema management in the centre of the City raised a sum of money which enabled a large number of parcels to be provided to lonely elderly persons with the aid of the Women's Voluntary Service. This organisation also helped in the delivery of mobile meals during the holiday period. Arrangements were made with the help of the Women's Voluntary Service for some 100 elderly persons from the City to spend Christmas Day at Westminster House and at the various other residential establishments, who would normally be left on their own on that day.

Additional Comforts

For some years it has been gratifying to place on record the thoughtfulness of the Merseyside Hospitals Council in making a substantial donation for the provision of additional amenities at the department's homes. The year 1964 was no exception and again it was possible because of this benefaction to provide either new television or radio sets or replace obsolete models, and to provide pianos at a number of establishments.

Towards the end of the year a good deal of thought was given to the question of the provision of amenities, such as tobacco, cigarettes and sweets to residents of the homes for aged persons. It was realised that not only was this a relic of the days of the Poor Law but the gap had widened between the cost of tobacco, etc., issued to men and that of sweets, etc., to women and non-smokers. It was decided to institute a scheme as soon as possible whereby all residents should receive extra comforts to the value of 5s. per week.

Outings

A very popular amenity has always been the provision of summer outings. During 1964, afternoon trips were arranged to a well-known

beauty spot in Cheshire and to places of interest in the Wirral. For those who wished to go further afield day outings were arranged to Fleetwood and North Wales. The residents at the “Westdene” holiday home at Southport were also able to participate in trips to neighbouring places of interest in rural Lancashire.

TEMPORARY ACCOMMODATION

The previous report referred to the forward planning which was taking place in regard to the ultimate closure of the Lower Breck Road unit and the provision in its place of a new unit of temporary accommodation, and also some units of intermediate accommodation where rehabilitation services could be provided for problem families.

As part of this programme agreement has been reached to build a permanent reception centre for some ten families in Langtry Road, Liverpool, 4, and at the end of the year discussions were taking place with the Ministry of Health as to the detailed arrangements. A house had also been found which was considered to be suitable for intermediate accommodation and steps were in hand to acquire the premises by a compulsory purchase order. In the meantime, further upgrading of the Lower Breck Road unit has taken place with the provision of extra bedding, furniture, heating, etc.

Statistical information of the numbers of admissions and discharges at Lower Breck Road during the year shows the maximum number of persons accommodated at any one time was 102 (two men, 23 women and 77 children) and the minimum 43 (two men, nine women and 32 children). The daily average accommodated throughout 1964 was approximately 64 persons. The average length of stay of all families was about sixteen days, the longest stay being over twelve months. The following table shows the numbers of families with their children admitted during the last four years:—

			1961	1962	1963	1964
Families	...	...	213	226	240	198
Children	...	...	534	577	623	497

Case Conferences

During the year the circumstances of 47 new cases admitted to the temporary accommodation unit were discussed at monthly case conferences attended by officers of various Corporation departments and members of interested voluntary bodies, etc. In addition, nineteen other representative meetings were held to discuss the circumstances of families

where there were special problems arising out of poor budgetary control, rent arrears, etc., and particularly where there was a risk of family break-up.

DOMICILIARY WELFARE SERVICES

The following is a selection from among the many problems dealt with during the year by the staff of social welfare officers.

1. A doctor referred to the department an aged couple, husband and wife, living in a Corporation flat, but in very poor circumstances. The woman was in bed, very ill and needed immediate hospital treatment but refused to go. She was seen by a doctor from the department with a view to having her forcibly removed to hospital. The doctor, together with a welfare officer, spent over an hour in the house before coming to a decision and it was decided she was too weak to move. It was arranged that the district nurse should call twice a day for a month, also daily home help for a while. Mobile meals were supplied to the husband, and bedding and clothing were supplied by the National Assistance Board. Daily visits were made by the welfare officer for three weeks. The old lady, although still very frail, is now up and dressed and both she and her husband are enjoying mobile meals. If this couple had known of the services provided by the local authority a few years ago they would probably not have been in such a plight.

2. Two elderly sisters live in a house which is like a scene from a Dickens novel with oil paintings, chandeliers and glassware festooned with cobwebs. The house is due for demolition under a closing order, but the sisters cannot be persuaded to accept any of the offers made by the Housing Department and fail to appreciate they are hindering the development of the area. Offers from Estate Agents have also been refused.

3. Mr. S. is an elderly Arab living alone in a dilapidated house without a water supply. The old man's command of English is poor and he has a speech defect following a thrombosis. Help was sought from the local Arab community who persuaded him to agree to vacate the house which was beyond repair, but none of them is anxious to give him shelter. Meanwhile they are keeping in touch with the man.

4. Mrs. D. is 85 years of age. She lives alone in an old type of Corporation dwelling, without a bathroom. She suffers from ulcerative colitis. She accepts the services of the weekly home help, is proud of her nicely kept flat and enjoys a hot dinner three times a week supplied by the mobile meals service. She is still able to get to Church on Sunday. Her only daughter lives some distance away, but visits her regularly. The old lady is of independent character and does not want to give up her home to live in a pleasant hostel although she realises that

it is difficult for her to continue to live in her present flat. When she came out of hospital two years ago the doctor recommended transfer to a flat with a bathroom, strict hygiene being important to her health. On medical grounds maximum points were awarded but Mrs. D. is still waiting for her flat because of the long waiting list. Meanwhile she manages as best she can, maintaining quite a good standard, and visits continue to be made to her.

5. H. and G. are brothers, aged 45 and 62 years, respectively. G. is deaf and dumb and H. is of subnormal intelligence. They have lived alone since their mother's death.

A social welfare officer and an officer from the local agency for the deaf and dumb had to gain access by climbing a high paling and entering by the back door. The brothers were withdrawn and frightened of outside contact, they were both sickly and showed signs of malnutrition. They had no heat and very little food. The house was very neglected.

Mobile meals were provided, coal and groceries and cleaning equipment purchased and delivered. The contact has been sufficiently successful to encourage these brothers to light a good fire and to clean the house as a welcome surprise for the visiting officers.

Already they seem to be leading a more normal life as members of the community. H. visits the rent office regularly to pay his rent—which was in arrears—and calls at the office to see the social welfare officer.

A substantial grant has been obtained to re-equip completely these two men with clothing and bedding and the National Assistance Board have given an increased weekly grant to cover coal and rent.

The aim is to encourage G. to attend the Deaf and Dumb Institute where H. may also accompany him and from there be found a job and so rehabilitate these two men within their own home.

6. A circus employee, with a wife and two children, lost his job due to a medical condition and wandered to various towns. Eventually the family came to Liverpool and were directed to the Reception Centre. Later they found suitable accommodation, and an appeal to the National Assistance Board for an increased allowance was granted. A doctor arranged for the husband to be investigated and epilepsy was diagnosed. The Disablement Resettlement Officer of the Ministry of Labour registered the husband as a handicapped person and arrangements were made for an interview and assessment for training at the Ministry of Labour Training Centre.

The family are together and slowly getting established into a normal way of life.

7. Mr. H., aged 76 years, has been known to the department for eight years and had been visited frequently until his recent admission to hospital.

This man had lived alone since the death of his wife some years ago, and preferred to do so rather than enter residential accommodation. The contacts made with the social welfare officer undoubtedly prevented the old man from becoming a recluse. At times he suffered from a persecution complex in the form of electrical interference by neighbours. The visits made to Mr. H. have always been appreciated and he has welcomed the mobile meals service. Follow-up visits will be made on discharge from hospital and it may be then that an offer of residential care will be accepted.

8. Mr. and Mrs. Y., a married couple, were referred to the department by a hospital almoner. The husband had a stroke two years ago which left him with a hemiplegia and total loss of speech: his wife is a much younger person.

The husband's sole desire was to be left alone while the wife's desire for outside contacts was expressed in an exaggerated urge to get the husband to join clubs and be among other people. The social welfare officer has had the difficult task of explaining to both husband and wife the particular needs of each other. The husband has occasional visits from his doctor and the parish priest and required help in conveying to the wife his need for a quiet re-adjustment at home. On the other hand the wife, having fulfilled her domestic tasks, should find diversions in short but regular outings on her own. She will need some time and support to become adjusted to the new circumstances.

9. Mrs. G., a widow aged 75 years, with an independent outlook who had been a hard worker all her life, became confined to bed because of a heart condition which also produced feelings of overwhelming weakness and depression. The old lady had a number of interested and helpful relatives and her doctor considered that it would be in her best interests to be treated at home rather than in hospital. Accordingly, all the domiciliary services of the department were mobilised including the provision of nursing equipment, mobile meals and regular visiting. The old lady made a good recovery and was able to help a sister who in her turn had become ill. The greatest praise of Mrs. G. was in respect of the mobile meals service which she said had meant so much to her.

REMOVAL TO SUITABLE PREMISES OF PERSONS IN NEED OF CARE AND ATTENTION

During the year sixteen persons were the subject of orders under the National Assistance Acts of 1948 and 1951 for their compulsory

removal because they were in need of care and attention. Fifteen persons were removed because they were suffering from grave chronic disease, and one because he was aged, infirm and living in insanitary conditions.

At the end of the year it was ascertained that one person had been transferred to a private nursing home, one had been transferred from residential accommodation to hospital, one had been discharged from hospital to the care of relatives, five patients had died and eight were still in hospital.

MOBILE MEALS

There has been a progressive increase in the numbers of persons receiving mid-day meals and, at the end of December, 1964, over 12,500 meals were being distributed per month to over 960 recipients. Apart from Westminster House, five other residential establishments were playing their part in the preparation and dispatch of the meals. During the year 1965 it is hoped to extend the service to cover about 1,200 persons.

REST CENTRES FOR ELDERLY PERSONS

In addition to the four existing rest centres in the City, three being run in co-operation with the Women's Voluntary Service and one by the Liverpool Old People's Welfare Council, it is proposed to build a day centre for elderly persons in the Lark Lane/Livingston Drive area. At this centre there will be recreational and meals facilities for those who are able to make the journey from their own homes. If the plans are approved, and they are under consideration by the Ministry of Health, about 100 persons at any one time will be able to enjoy the amenities of the building as well as the bathing, laundry, chiropody, etc., services to be provided.

REGISTRATION OF DISABLED PERSONS' AND OLD PERSONS' HOMES

Twenty-six homes are registered with the authority, sixteen administered by voluntary bodies and ten by private individuals. Inspection is made from time to time by officers of the department to ensure that satisfactory standards are maintained in the light of the provisions of the National Assistance (Conduct of Homes) Regulations.

WELFARE OF HANDICAPPED PERSONS

Blind Welfare

The following table gives statistical information in respect of the last three years in regard to the results of the examination by ophthalmic surgeons of persons who were referred because their vision was so defective that they might be regarded as blind or partially sighted:—

Year	Number Examined	Registered as Blind	Registered as Partially Sighted	Not Blind
1962	204	138	60	6
1963	152	104	43	5
1964	216	154	49	13

Statistical tables in regard to registered blind and partially sighted persons are contained in the appendix. The number of persons on the register of the blind has been declining steadily for some years and this is illustrated in the following table:—

Year	Number on the Register
1953 ...	1,688
1955 ...	1,681
1957 ...	1,614
1959 ...	1,566
1960 ...	1,557
1961 ...	1,549
1962 ...	1,528
1963 ...	1,488
1964 ...	1,475

Blind Employment

The following are details in respect of the numbers of blind persons who were engaged at the 31st December, 1964, in various trades operated at the two workshops for the blind in Liverpool:—

Workshops for the Blind, Cornwallis Street:—

Basket making	...	...	...	10
Brush making	...	...	...	21
Mat making	...	...	...	31
Upholstery	...	...	...	6
				68

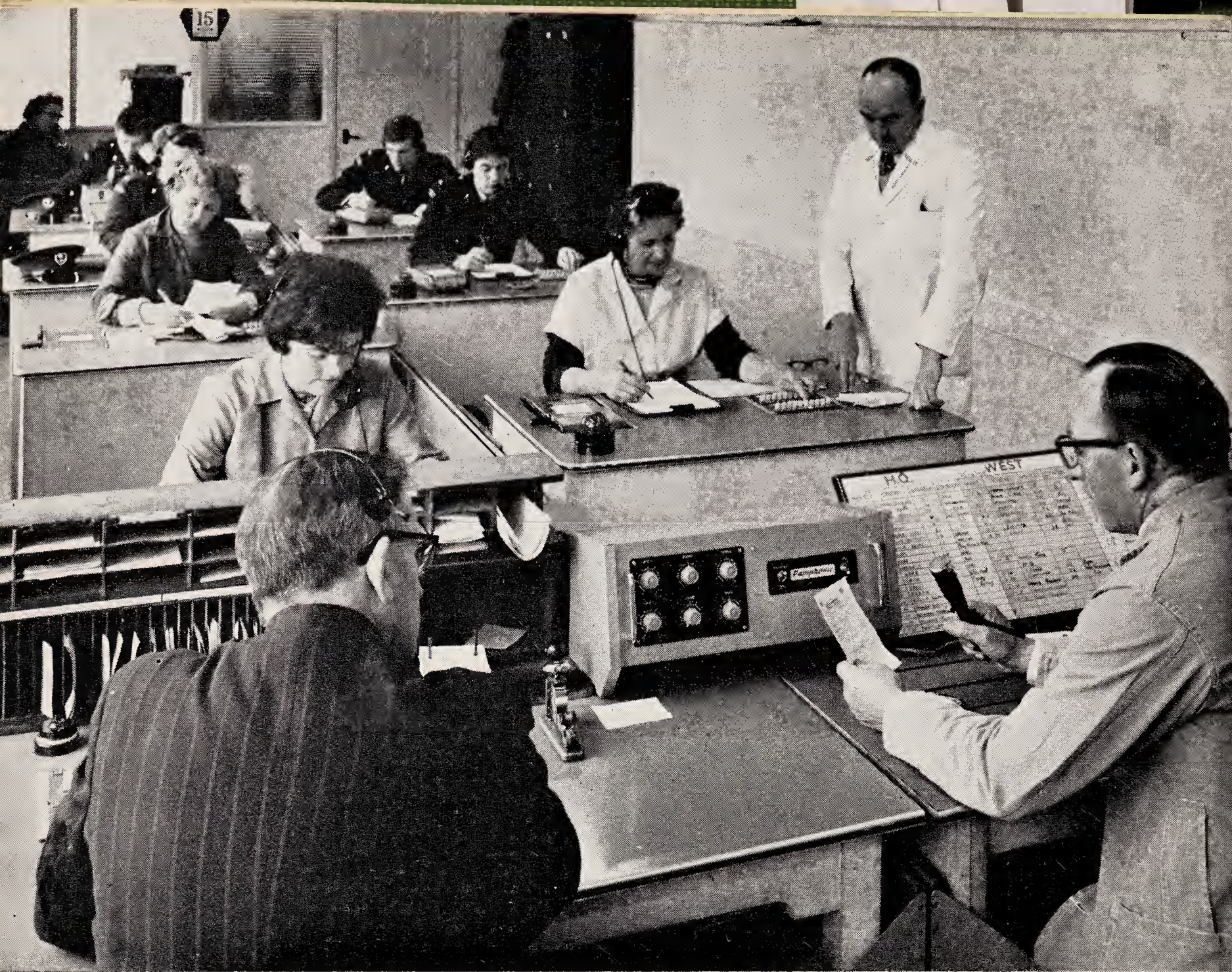
Catholic Blind Institute, Brunswick Road:—

Basket making	...	...	...	1
Mat making	...	...	...	2
Machine knitting	...	...	...	5
				8
				—
				76

The following numbers of blind persons were engaged in sighted industry, which represents an increase of two over the previous year:—



Residential Accommodation—Reception of Residents



Control Room

AMBULANCE SERVICE

Cadet Instruction



Agents and Collectors	...	...	...	...	...	...	3
Cleaners and Porters...	...	...	...	...	...	...	4
Fitters and Assemblers	...	...	...	...	...	...	17
Groundsman ...	...	...	...	...	...	...	1
Labourers ...	...	...	...	...	...	...	3
Machine Tool Operators	...	...	...	...	...	...	33
Managers, etc.	...	...	...	...	...	...	2
Masseurs ...	...	...	...	...	...	...	1
Musicians ...	...	...	...	...	...	...	3
Packers, etc. ...	...	...	...	...	...	...	11
Piano Tuner ...	...	...	...	...	...	...	2
Process Worker	...	...	...	...	...	...	1
Shop Assistant	...	...	...	...	...	...	1
Shopkeepers, etc.	...	...	...	...	...	...	4
Social Welfare Officers, etc....	...	...	...	...	...	...	4
Solicitors, etc.	...	...	...	...	...	...	3
Storekeeper ...	...	...	...	...	...	...	1
Teachers, etc....	...	...	...	...	...	...	2
Telephonists ...	...	...	...	...	...	...	7
Testers, Inspectors, etc.	...	...	...	...	...	...	4
Typists, etc. ...	...	...	...	...	...	...	5
Upholsterers ...	...	...	...	...	...	...	2
							<hr/>
Total ...							... 114
							<hr/>

The following numbers of blind persons were employed in the scheme for home workers and their earnings supplemented by the City Council:—

Hawker	...	...	...	...	...	...	...	1
Knitter	...	...	...	...	...	...	...	1
Musicians, etc.	...	...	...	...	...	...	...	3
								<hr/>
								5
								<hr/>

Sir Robert Jones Workshops

These workshops, which provide sheltered employment for severely handicapped persons in the trades of bookbinding and printing, were appointed as the agent of the Corporation in 1962 following a revision of the arrangements for granting financial aid to the organisation. The number of Liverpool employees engaged is normally about 65, and after allowing for a Government grant the local authority will be contributing approximately £11,200 during the year ending June, 1965, towards the cost of the undertaking.

The management committee of the workshops are very keen on improving the efficiency of the undertaking, after taking into account the severe handicaps from which the employees suffer, and have taken

the step of engaging a firm of industrial consultants to advise on such matters as the commercial position and internal efficiency. The various findings have been reported to the local authority for information.

Deaf and Dumb Welfare

The City Council continued to grant-aid the two voluntary bodies, namely, the Liverpool Adult Deaf and Dumb Benevolent Society and the Catholic Deaf and Dumb Society of St. Vincent de Paul, which carry out on behalf of the local authority a welfare service to registered Liverpool residents.

From time to time meetings are held of the consultative committee representative of the Merseyside local authorities and the voluntary bodies when matters of common interest are discussed and talks or addresses are given by speakers who are expert in welfare of the deaf and dumb.

Epileptics

There are 86 epileptics receiving care at the cost of the local authority in three establishments administered by voluntary organisations and in one by another local authority.

In the early part of the year members of the Handicapped Persons Services Sub-Committee of the Health Committee visited by invitation one of these colonies, namely, the David Lewis Colony in Cheshire, and spent an interesting afternoon seeing the work of an establishment of this nature.

Parking of Vehicles

A number of badges was issued during the year to drivers for display on their invalid cars with the object of helping the police to assist drivers in parking problems. This was in conformity with the wishes expressed in Ministry of Health Circular 17/61.

Structural Adaptations in Homes of Disabled Persons

The amount of work carried out under this heading continues to increase. It is largely to facilitate the garaging of invalid vehicles or easier manipulation of wheel chairs. The various works have included the provision of ramps and carriage crossings, alterations to paths, doors, fences and walls and resiting of fittings such as baths, etc. During the year it was agreed that structural alterations of this kind should be carried out by the newly-formed Works Department of the Corporation. These amenities have proved of great benefit to the handicapped persons concerned who have all been very appreciative of the efforts carried out on their behalf.

100 Walton Village

The following organisations still make good use of the premises at 100 Walton Village for social and recreational purposes:—

Disabled Drivers' Association.

Inskip League of Friendship.

Liverpool Hard of Hearing Club.

Liverpool Spastic Fellowship (Day Centre).

Centres for Handicapped Persons

The Handicapped Centres continue to flourish, with a weekly attendance of fifteen to twenty people at each of four centres. There are two craft instructors and a wide range of handicrafts is taught.

People travel to and from the centres by means of special lift vehicles. A mid-day meal is provided by the mobile meals service. The Women's Voluntary Service kindly provide voluntary help and two ladies attend all the centres to make tea and wash up afterwards.

In November the Handicapped People's Holiday Camp Association held an exhibition of crafts made by the handicapped people living on Merseyside and invited exhibits from the centres. About 60 people sent samples of their work and it was possible to sell many of the articles to the public and take orders.

The Handicapped Persons Services Sub-Committee again made a generous grant to cover the cost of the annual summer outing which was to Rhyl. The special vehicles for wheel chair cases, as well as a coach, were used. Again voluntary workers gave up a day to act as guides to people in wheel chairs. The weather was fine and everyone had a very enjoyable day.

The annual Christmas party was held at Westminster House with an attendance of 100 handicapped men and women. Members of the City Council and other guests also came. After tea there was an entertainment in the concert hall and a member of the Handicapped People's Holiday Association brought her concert party to take part in what was a very successful evening.

PROTECTION OF THE PROPERTY OF PERSONS ADMITTED TO HOSPITAL OR RESIDENTIAL ACCOMMODATION, AND ESTATES OF DECEASED PERSONS

During the year about 1,900 visits and revisits were made in connection with the property of persons admitted to hospital or residential care and also in connection with the affairs of deceased persons whose funerals were undertaken by the department. Occasionally it is found that persons who have died in poor surroundings were the owners of considerable property. One such case was that of an elderly man who had lived alone in a two-roomed flat. His saleable effects

realised only a very small sum but his estate was over £3,000. In the absence of any will or next of kin the normal step was taken of referring the administration of the estate to the Duchy of Lancaster.

A sum of £2,131 was recovered from various sources and placed with the City Treasury for the time being for safe keeping.

Of the total cases dealt with, 38 were referred by the police including 29 persons found dead at home or elsewhere, the other nine had been taken ill and removed to hospital.

HOUSING POINTS SCHEME

The allocation of points is designed to enable the Medical Officer to give assistance to those cases which, for reasons of health, should receive some degree of priority in rehousing. There are two forms which this assistance may take:—

DETAILS OF SCHEME

1. Additional points may be awarded and added to the applicant's basic points. For general medical cases a maximum of five points per household can be given. In many cases this brings the applicant into the allocation group and he is assured of rehousing.

2. By arrangements between the Director of Housing and the Medical Officer of Health, 180 new lettings are made available each year for urgent priority rehousing on health grounds. Of these, 90 are allocated for the rehousing of families in which tuberculosis has been diagnosed. The remaining 90 premises are available, at the discretion of the Medical Officer of Health, for the urgent priority rehousing of families in which there are medical conditions other than tuberculosis.

In all cases recommended for urgent priority, the Director of Housing notifies the Medical Officer of Health whenever an offer of accommodation is made, followed later by a notification of acceptance or refusal by the patient. If the offer has been declined the reason is investigated and the Director of Housing is notified whether or not the refusal is justified on medical grounds. If justified, then an offer of more suitable accommodation is made as soon as possible.

RESIDENTS OUTSIDE CITY BOUNDARY

Where an applicant is an authorised sub-tenant in one of the new Liverpool housing estates outside the City boundary and is on the City housing register, contact is made with the local authority concerned, and a housing report and medical certificate obtained. The case is then assessed in the usual manner.

HOUSING PRIORITY FOR GENERAL MEDICAL CASES

During 1964 a total of 8,575 general medical cases applied for assistance in rehousing. Of these, 789 general medical cases were awarded points and 126 cases were recommended to the Director of Housing for special priority rehousing, 90 of these cases having been accommodated by the end of the year.

A total of 4,366 general medical cases applied for transfer during the year. In view of the very large number, over half the total applications received, requesting a transfer from one Corporation property to another, it was necessary to limit the number of recommendations made on medical grounds to ensure that each had a reasonable chance of

being rehoused. As a result, 232 cases were recommended for transfer on medical grounds to the Director of Housing, 90 of these having been accommodated by the end of the year.

As examples of the type of case assisted during 1964, particulars are given of the following four cases:—

Case 1. This family consisted of a mother and father and two children. Early in the year the home was destroyed by fire and the two children were admitted to hospital with severe burns which necessitated in-patient treatment for six months, followed by out-patient physiotherapy. Later in the year the father of the children sustained a serious accident which required admission to hospital and amputation of a leg. During the course of most of the year the family were moving from home to home, living with various relatives. At one stage the wife found herself as far as Ashton-in-Makerfield, Lancashire, from which she had to bring her children two or three times a week to hospital and also look after her seriously injured husband. On a special priority recommendation this family were reunited and rehoused in reasonable proximity to the hospitals attended by the children and the father. From the time of re-housing, the family, whose morale was rapidly failing, commenced to improve and at the time of writing this report are still making good progress.

Case 2. This family comprised a mother of 49, father of 50 and a daughter of 18. They were living in a two-storey tenement dwelling, cold and damp and suffering from considerable disrepair. There was no bathroom and the toilet was outside in the yard. It was necessary to climb fourteen stairs to the bedroom. The father suffered from severe heart disease which made it very difficult for him to climb stairs. He frequently needed oxygen, averaging six cylinders per week. His wife also suffered from severe heart disease, having sustained a myocardial infarction from coronary thrombosis. Left under these conditions, the prognosis in both man and wife would have been very poor. A recommendation of special priority rehousing was made and this included the recommendation that the accommodation should be without stairs. This resulted in accommodation in a ground floor flat. This better environment of modern accommodation with no disrepair, both warm and dry, led to considerable improvement. Further it was now possible for these two persons to go to bed or lie down for rest periods during the day without the ordeal of climbing a flight of difficult stairs.

Case 3. In this instance the family of mother, father and three young children shared a three-bedroomed terraced house with the grandparents and the mother's sister. The mother had a long history of mental disease, with severe depression and suicidal tendencies, associated

with epilepsy. On three occasions she had attempted suicide and had required prolonged treatment. In each instance, the precipitating factor was stress in the home. At one stage, because of the home difficulties, the husband left his wife and family and his wife contemplated obtaining legal separation. This was a measure of desperation because at heart both husband and wife were devoted to one another and to their children. Priority rehousing in a house of their own enabled this family to be reunited away from domestic friction, so that the medical treatment for the mother's mental condition could have some reasonable chance of success.

Case 4. This family consisted of mother, father and four children, one of whom was suffering from multiple abnormalities of both arms and legs, resulting from thalidomide. Their home was a two-storey terraced dwelling with scullery and W.C. in the yard and no internal water supply. Under these circumstances the task of teaching the handicapped child to overcome his deformities would have been almost impossible. A priority recommendation for a house with a garden was made and the family were re-housed in time to give the child, who was equipped with artificial walking aids, adequate surroundings in which to learn to walk and fend for himself.

PRIORITY RE-HOUSING OF TUBERCULOSIS CASES

In tuberculosis cases, a report is submitted by the tuberculosis visitor giving such details as the type and extent of the disease, the state of infectivity and any family history of tuberculosis, along with details of the present housing conditions. Extra housing points, to the maximum number of five, can be awarded and, in addition, those cases which appear to be sufficiently urgent to merit special priority are visited personally by a Medical Officer, who then may recommend their inclusion in a special tuberculosis priority scheme. The number of cases rehoused under this scheme during 1964 was 128 out of 200 recommended.

In cases where the sufferer was already housed in Corporation property but the property was inadequate, either to ensure adequate isolation in the home, or in cases where the family size had increased and overcrowding existed, a recommendation of transfer to other Corporation property is made. During 1964, 89 transfers of this nature were effected from 228 recommended by the Medical Officer of Health.

Examples of the type of case assisted are as follows:—

1. A young woman of 28, suffering from pulmonary tuberculosis, was living with her husband, one son aged two and a daughter of eight months, in one room in a second-floor Corporation flat, shared with an aunt and uncle plus their daughter of twenty and their son of sixteen.

A further child was shortly expected. An urgent priority recommendation for rehousing was made and the family were rehoused in a flat in Kirkby, leaving the aunt and uncle with their family in possession of the vacated accommodation. As a result of the overcrowded conditions, the aunt was also infected with tuberculosis, but as soon as these conditions were dealt with and the source of infection removed, no further cases arose in either family.

2. A middle-aged husband and wife were both admitted to hospital with pulmonary tuberculosis. As they anticipated a stay of many months under treatment, they gave up the tenancy of their flat. The wife was discharged from hospital first and with nowhere to go other than the home of her married daughter, was obliged to sleep in a makeshift bed on the floor. Her husband was discharged from hospital some five months later. It would have been completely unsuitable for him to join his wife at his daughter's home, as at that time his daughter was obliged to share her bedroom with her husband and three children. The house was in a serious state of disrepair, the chimney stack having fallen in and one room was uninhabitable. A recommendation for urgent priority rehousing was made and the hospital co-operated in keeping the husband in until the new home was ready.

MEDICAL EXAMINATIONS

During 1964 a total of 3,067 medical examinations of employees was carried out by the medical officers in the Health Department. These examinations were of three types—(1) for entry into the Corporation service for officers, (2) for entry into the superannuation scheme for manual workers, and (3) by reason of extended sickness. In this latter category examination is carried out to determine—

- (a) Whether the employee remains fit to continue in his existing employment;
- (b) Whether modifications will be required; and
- (c) Whether extension of sick pay is indicated or whether retirement is necessary.

Fifty-six candidates were examined on behalf of other local authorities. Of the examinations undertaken for the Corporation, 1,319 were for new appointments of officers, 1,218 for admission of manual workers to the superannuation scheme, 220 were for extension of sick pay and 310 were in consideration of the suitability of their present employment. Included among these were 66 Mersey Tunnel workers who are given periodical examinations because of the nature of their work. This year there were no employees of the Water Engineer's Department needing special examination for work in compressed air in the shaft and tunnel under the Manchester Ship Canal from Norton to Prescott. Fifty-seven underwent special examination for work involving entering water mains. Several hundred reports were obtained from doctors in hospitals and general practice. In consultation with the patient's general practitioner or hospital consultant, where appropriate, it was decided after medical examination that 183 were permanently unfit for work and should be retired, 25 manual workers were found unfit for entry into the superannuation scheme and six officers were medically unfit to take up new appointments, a total of 214 persons, being 13 per cent of those examined. A list of the medical conditions causing unfitness appears in the following table:—

Cardiovascular System.

Hypertension	...	...	...	...	33
Coronary disease	...	...	...	...	23
Valvular disease	...	...	...	...	1
Cardiac failure	...	...	...	...	8
Cardiac arrhythmia	...	...	...	...	4
Other	...	...	...	...	5

Psychiatric conditions.

Anxiety state	...	...	...	...	14
Depression	...	...	...	...	5
Paranoia	...	...	...	...	1

Blood and

Endocrine Systems.

Blood	...	...	...	...	7
Endocrine	...	...	...	...	2

Respiratory system.					
Chronic bronchitis	...	...	...	47	
Chronic bronchitis and emphysema	...	...	...	47	
Bronchiectasis	...	...	...	4	
Tuberculosis	...	...	...	1	
Other	...	...	...	1	

Nervous system.					
Cerebrovascular disease	...	...	13		
Affections of cranial and peripheral nerves	...	...	3		
Epilepsy	...	...	2		
Other	...	...	2		

Alimentary system.					
Peptic ulcer	...	...	6		
Hernia	...	...	2		
Mucous colitis	...	...	1		

Orthopaedic conditions.					
Fractures and injuries	...	...	8		
Arthritis	...	...	20		
Spinal lesions	...	...	2		
Other	...	...	2		

Cancer.					
Carcinoma					
Breast	...	...	2		
Bronchus	...	...	5		
Rectum	...	...	1		
Bile duct	...	...	1		
Ovary	...	...	1	10	
Hypernephroma	...	...	1		
Sarcoma	...	...	1		

Other Conditions.					
Endometriosis	...	...	1		
Epididymitis	...	...	1		
Deafness	...	...	2		
Removal of kidney (calculus)	...	...	1		
Retinopathy	...	...	1		
Detached retina	...	...	1		
Skin disease	...	...	1		
Cholecystitis	...	...	1		
Dermatomyositis	...	...	1		
Glaucoma	...	...	1		

Number suffering from more than one defect—27.

SCREENING OF CROSSING PATROLS

During the course of the year, 77 school crossing patrols underwent screening examinations carried out by three specially trained members of the nursing staff who had been instructed in interview technique, in the measurement of blood pressure and vision testing including examination for restriction of the visual field. Where abnormalities occurred these were referred to a medical officer for assessment. It is pleasing to report that although many persons were referred for medical treatment, for refraction for spectacles, or recalled for re-examination, only one was found to be permanently unfit for crossing patrol work.

CARDIOVASCULAR AND RESPIRATORY SURVEY

This survey continued throughout the year, new entries being interviewed and a questionnaire completed. Over 1,000 electrocardiograms were carried out during the year.

ENVIRONMENTAL HEALTH CONTROL

GENERAL

The work of the public health inspector has many aspects which bring him into contact with the public, but primarily he is concerned with the enforcement of enactments which have been formulated with the one purpose of improving environmental conditions, whether in the home or place of employment.

Staff Problems

There is still a shortage of qualified inspectors and the training scheme within the department has been the only source of recruitment for a number of years. The Public Health Inspectors Education Board control the number of inspectors who may attend a training course and present arrangements provide for an average of eight students qualifying per year over a period of four years. During the past five years there has been an average loss of thirteen inspectors per year and this annual loss must impair the service of the section.

Student inspectors attend a training course which extends over four years and the first course terminated this year. It is very gratifying to be able to report that the nine student inspectors from the department were all successful and were awarded the Diploma qualifying for appointment as public health inspector. Three student inspectors qualified under the old regulations.

Details of Work

Additional powers are now available as the main part of the Offices, Shops and Railway Premises Act, 1963 became operative on the 1st August, 1964, and this Act together with Regulations made under the Act will enable the local authority to require satisfactory environmental conditions in premises subject to the Act, some of which were not previously controlled by such legislation.

Impressive progress has been made in the "Slum Clearance" drive, 4,163 houses were represented as unfit for habitation and many of these houses are in multiple occupation. A total of 2,866 multi-let houses have now been dealt with.

Three Smoke Control Orders became operative during the year and two Orders were submitted for confirmation. The improvement in the atmosphere in those parts of the City which are subject to Smoke Control Orders is most marked by the absence of visible smoke and should be a spur to encourage the completion of smoke control for the whole of the City. Nearly half the city is now smokeless.

A total of 27,593 requests was received for inspectors to visit premises which necessitated a total of 47,078 visits to remedy the com-

plaints. Altogether a total of 259,871 visits and inspections was carried out under various enactments and 11,038 notices were issued under the Acts and Byelaws.

During the year 37 prosecutions were taken and the penalties and costs which were imposed amounted to £191.

Reports were submitted to the Special Sub-Committee recommending work in default of owners be carried out to 222 houses. The expenditure incurred is recoverable under the appropriate enactment.

The Public Health Act, 1961 empowers the Corporation to clear drains after giving 48 hours' notice. Notices in respect of choked drains numbered 1,048 and it was necessary for the Corporation to clear 84 drains in default of the owners. The cost incurred will be recovered in accordance with the Act.

Defective drains cause rodent infestation, flooding and subsidence. Drainage systems tested to remove these problems numbered 1,338 and notices were issued in respect of 671 drainage systems which were found to be defective. In addition, 39 choked or defective public sewers were referred to the City Engineer's Department for action under the provisions of Section 24 of the Public Health Act, 1936. The cost incurred will be subsequently recovered from the owners of the property involved.

The weekly meeting of the Special Sub-Committee has enabled immediate action to be taken to clear choked drains and remedy other urgent defects. This procedure constantly reduces the period of time during which tenants can suffer discomfort.

Other departments have co-operated by forwarding references in respect of matters requiring the attention of inspectors and 3,269 references were forwarded to other departments.

Inspectors visit houses to make enquiries following notifications of certain infectious diseases. The number of visits to premises in connection with cases of infectious disease amounted to 1,643 and the number of enquiries regarding contacts to 216.

Investigations have continued in connection with ingestion disease enquiries and inspectors obtained information about contacts and modes of infection. The number of specimens submitted for bacteriological examination amounted to 5,537 from 3,233 persons, of which 864 from 539 persons proved positive.

Thirteen common lodging-houses are registered in the City, twelve provide accommodation for 916 males and one provides accommodation for 95 females. The public health inspectors made 225 visits, both day and night, resulting in sixteen notices being issued in respect of byelaw infringements and on fifteen occasions it was necessary to give the keepers a verbal warning.

A total of 7,550 beds were examined and 925 beds and articles were found to be verminous, 905 being cleansed by the local authority and twenty articles being destroyed under the supervision of the public health inspectors.

Eight seamen's lodging-houses exist in the City, five of which are unlicensed and three licensed, under byelaws. These houses provide satisfactory accommodation for British seamen and other nationalities, including Chinese, Arab, Somali and Indian. The total accommodation available is 794 beds and public health inspectors made 54 day and night inspections. Infringements of the byelaws were reported on seven occasions and the necessary action was taken to comply with the requirements of the legislation.

Under the terms of licenses issued from the Home Office, Inspectors supervised the exhumation of 21 bodies during the year and the remains of three persons were shipped abroad.

Inspections of trial holes were made on 28 filled-in sites to ascertain whether the ground was free from faecal or offensive animal or vegetable matter.

The Docks and Inland Waterways Executive, North Western Division, are the proprietors of the Leeds and Liverpool Canal, the only canal having direct communication with Liverpool. The length of the waterway within the City (exclusive of the locks communicating with the dock estate) is approximately three miles.

Liverpool is one of several registration authorities for boats used as dwellings plying on the canal.

The inspectors of the Port Health Authority made 34 inspections of canal boats in the docks during the year.

No case of infectious sickness was reported as having occurred during the year on any canal boat visiting the district.

The population resident on canal boats numbered 68, all men.

Sewerage

A programme of reconstruction of very old sewers found to be defective, and construction of new sewers to meet the needs of new or impending development is continuously being carried out, within the limits of the money voted for this purpose.

Both at the north and south sewage disposal works, the former of which is overloaded, construction of works extensions are proceeding. In the case of the south works, work on extensions has recently commenced in advance of the impending large-scale Corporation housing project at Netherley.

HOUSING AND SLUM CLEARANCE

The record number of houses represented as unfit in any post-war year was again exceeded during 1964, there being 3,501 included in clearance areas and 662 dealt with as individual unfit houses making a grand total of 4,163 dwellings represented. The population figure of 13,259 people occupying these houses gives some conception of the magnitude of the task of rehousing, particularly when faced with a problem of land shortage within the City boundaries for the building of new housing units.

Almost all of the area surveys which are carried out at the present time reveal a considerable number of houses in multiple occupation and there is no doubt that there is a great need for the new legislative powers in the Housing Act of 1964, together with the Act of 1961 to enable health inspectors to cope with this progressive housing problem.

Notwithstanding these new powers, a considerable effort was made to deal with these houses in multiple occupation under the Clearance Area procedure and some 499 multi-occupied dwellings were represented in Clearance Areas during 1964.

Thirty Clearance Areas were represented during the year, in which were included 3,501 dwellings classified as suitable for demolition having regard to the standard of fitness as laid down in the Housing Act of 1957.

Following upon representation, 1,473 houses in sixteen Clearance Areas were made the subject of eight Compulsory Purchase Orders, six of which were submitted to the Minister of Housing and Local Government for confirmation, and seven Clearance Orders made in respect of 104 houses were also submitted for confirmation.

Four Public Inquiries were held involving a total of 815 houses in five Orders. Four of the Clearance Orders submitted were unopposed; the Ministry inspector visited the areas concerned.

Nine of the Orders submitted were confirmed. The number of dwellings in these Orders was 1,782, a considerable increase over the previous year.

Families rehoused from houses included in confirmed Compulsory Purchase Orders numbered 1,560. This also shows an increase over the number rehoused in 1963.

The Demolition and Closing Orders (Special) Sub-Committee dealt with a large number of individual unfit houses under the provisions of Part II of the Housing Act, 1957, a total of 662 dwellinghouses being represented to the Sub-Committee as unfit for human habitation. These premises were occupied by 1,342 families.

The Sub-Committee considered the condition of 454 houses during the year. Of these it was resolved that demolition orders be made in

respect of three houses, closing orders in respect of 409 houses and undertakings to make the premises fit for human habitation within a specified period of time were accepted in respect of 42 houses. In addition, 97 considerations in respect of rooms and parts of premises occupied as separate dwellings which were unfit for human habitation were considered and in 92 cases it was decided that closing orders should be made and in respect of five premises the Committee accepted undertakings from the owners that the works be carried out to make the premises fit for human habitation.

Following upon the rehousing of the occupants in premises subject to operative orders 32 houses were demolished and 166 dwellings were closed and sealed. In addition 41 dwellings being parts of premises were also closed.

Premises were reinspected where owners had carried out works as required to make premises fit for habitation and as a result of the works undertaken the Committee during the year rescinded five closing orders and seven undertakings.

A total of sixteen appeals was lodged in the County Court against the decision of the Committee either to make closing orders or issue notices of intention to purchase and subsequently four of the appeals against closing orders were withdrawn and in nine appeals the Judge varied the decision of the Committee and substituted closing orders for notices of intention to purchase. In all these cases the Judge commented that his decision was based on the fact that conditions had changed since the premises had first been considered by the Committee. Three cases remained undecided at the end of the year, these having been adjourned at the request of the appellants.

The Housing Committee decided to form a Special Sub-Committee whose terms of reference were to deal with special cases where eviction had been threatened and the premises were not unfit for human habitation. During the year 62 cases were reported to the Committee who resolved in 38 cases to negotiate with the owners for the purchase of the property and should the negotiations not be successfully concluded it was resolved that compulsory purchase powers be implemented. In seven cases the Committee decided to make compulsory purchase orders while in thirteen cases, having regard to the circumstances, no action was taken and four cases were deferred for further consideration.

As a result of information received reports were submitted to the Committee regarding exorbitant rents charged in respect of terrace-type dwellinghouses and in one case the owner subsequently agreed to reduce the rent to a figure suggested by the Committee.

Houses in Multiple Occupation

Reports were submitted to the Special Sub-Committee in respect

of eighteen premises which did not comply with the Houses in Multiple Occupation Regulations made under the Housing Act, 1961 and the Committee resolved that notices be issued requiring the owners to carry out necessary improvements and provide additional amenities as required by this enactment. During the year notices were issued in respect of 55 items.

A total number of 31,882 visits has been made by public health inspectors to dwellinghouses, under the provisions of the Rent Act, 1957, since the Act first became operative on the 6th July, 1957. A total of 8,685 applications for certificates of disrepair and 1,297 applications for cancellation of certificates of disrepair have been received. Some 3,236 tenants have applied for certificates as to the non-remedying of defects specified in undertakings given by landlords and 2,475 applications have been received from owners for certificates as to the remedying of defects in undertakings which they have given to tenants. Figures in 1964 were :—

Total number of applications for certificates of disrepair	179
Applications withdrawn	9
Number of notices served on landlords of the Local Authority's intention to issue certificates of disrepair (Form J)	166
Number of undertakings to carry out repairs received from landlords (Form K)	97
Number of certificates of disrepair issued to tenants (Form L)	58
Number of landlords who completed the repairs within the statutory period following the service of Form J	17
Number of applications (Form O) from tenants who have applied after owners have failed to comply with undertakings given (Form H or K)	30
Number of certificates (Form P) issued to tenants	33
Number of applications (Form O) from owners who have completed their undertakings	136
Number of certificates (Form P) issued to owners	101
Number of applications (Form O) not finalised during the year	35
Number of applications (Form M) received from owners for a cancellation certificate	61
Number of objections to cancellation received from tenants	17
Number of cancellation certificates issued	50

If the landlord is not satisfied that all the defects as listed on the certificate of disrepair are reasonable he has a right of appeal to the County Court. Similarly, the tenant can appeal if he does not accept the decision of the local authority regarding the cancellation of the certificate on the application of the owner.



Typical Slum Clearance Area

Food Sampling

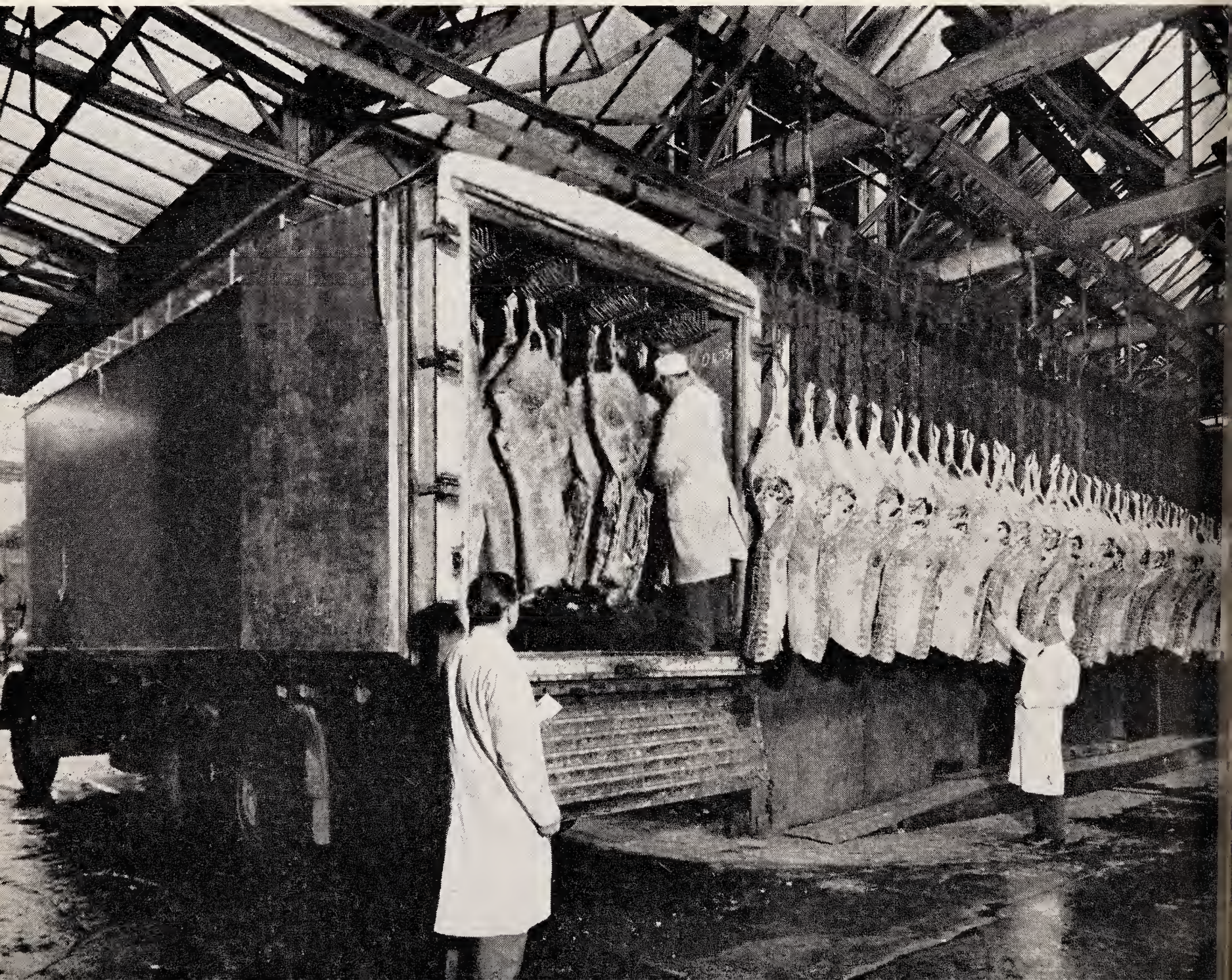




Stamping of Carcasses

MEAT INSPECTION

Final Inspection



Where premises are subject to a certificate of disrepair the tenant has a legal right to reduce the rent payable in respect of the dwelling-house until all the works as specified on the certificate have been remedied satisfactorily. Likewise, if the owner fails to carry out the works as listed on the undertaking, within the statutory period of six months, the tenant is also entitled to reduce the rent payable until such time as the defects have been remedied to the satisfaction of the local authority.

The owner is entitled to appeal to the County Court if the local authority refuse to cancel the certificate of disrepair. The tenant also has a similar right of appeal if the local authority indicate their intention to cancel the certificate. If the occupier has lodged an objection within the statutory period, this objection can only be lodged with the local authority if the works specified on the certificate of disrepair have not been completed satisfactorily.

During the year 567 houses were inspected following enquiries regarding improvement grants and of 109 formal applications for discretionary grants 98 were approved. Applications were also made in 184 cases for standard grants, 157 of which were approved.

The coming into operation of the Housing Act, 1964, which empowers local authorities to require the improvement of rented houses to a set standard is a most important step forward in the field of improvement since improvement grants were first introduced in 1949.

Already an area of the City has been surveyed with the intention of declaring an area of 110 houses to be an improvement area and it is hoped that this will only be the first of many such areas to be declared under the provisions of the Act.

During the course of the year the City Council again considered applications for loans on mortgage from prospective owner/occupiers and 1,099 houses were inspected for this purpose.

A total of 246 families living in overcrowded conditions was referred to the Director of Housing, although he is unable to offer alternative accommodation in all cases because of the housing shortage.

SHOPS ACT, 1950

The first stage in the long-awaited change in the Shops Act, 1950, has been accomplished by the revocation of the Welfare Sections 37 to 39 of this Act and the coming into operation of the Offices, Shops and Railway Premises Act, 1963. Certain sections of the new Act became operative on various dates during the year, until the whole enactment, with limited exceptions, came into operation on 1st August, 1964.

Booksellers, stationers, lending libraries, throughout the whole of the City, and the grocery and provision trade in the Central Area, are now exempt from closing on the half-day. Butchers, greengrocers and

fishmongers in the Central Area are still disinclined to support an application for exemption, but a referendum in respect of the bread trade in the Central Area was successful and the approval of the exemption order by the Secretary of State is awaited.

Shops Act 1950 and Young Persons (Employment) Act 1938

The general duties under these enactments have been limited again this year by the concentration of inspectors on other urgent duties. Inspections and investigations have therefore been limited to dealing with complaints, mostly in respect to the closing hours.

Enquiries concerning the conditions under which certain young persons are employed have also been dealt with, but infringements were found to be mainly of a technical character. In two instances it was found that young persons were employed for hours in excess of the permitted maximum, but the cases were considered to be suitable for warning by letter.

Complaints regarding shops being open after the normal closing hours, or on Sundays, have been noticeably fewer, and periodic surveys of the City appear to confirm that, apart from one particular locality, back street shops are not kept open as late as they formerly were.

A total of 23,895 inspections of retail shops of all classes, cafes, hairdressers, pet shops, warehouses, clubs, and places of entertainment have been made during the year. These are in addition to the routine and special visits to shops on the early closing day, in the evening and on Sundays which totalled 5,245.

Welfare Requirements

Inspections of all premises under the new Offices, Shops and Railway Premises Act, are being made in specially defined areas in the centre of the City, and the shops within these areas are inspected in the course of the survey. General inspections of shops outside these defined locations will be made progressively throughout the City, but in the meantime a number of inspections have been and will be made on request by occupiers or in connection with complaints. The complaints received were related to the insufficient heating of the shops concerned and in each case action by the department resulted in satisfactory improvements.

The total number of visits to shops for the purposes of the Offices, Shops and Railway Premises Act, 1963, was 260.

Hairdressers and Barbers

Work in connection with the provisions of Section 42 of the Liverpool Corporation Act, 1955, and the Byelaws for hairdressers, has been of a routine nature, mainly concerned with the registration of new

businesses, transfers to new owners, and follow-up inspections on the completion of structural and other works.

Complaints regarding the use of dwellinghouses for hairdressing businesses have been fewer during the year, but such cases were first referred to the City Planning Officer, before appropriate action was taken by this department.

During the year fifteen new hairdressers' registrations and seventeen transfers of ownership were approved, and the total number of such businesses on the register at the end of the year was 735. There were 62 inspections, and sixteen infringements were dealt with by special letters.

Places of Entertainment

There are 42 cinemas, theatres and other places of entertainment in the City, and evening and day visits were made to these premises. Fifteen defects were found and satisfactorily dealt with by the managements. Inspections of dance halls, bowling and bingo centres have also been made during the year.

Pet Animals Act 1951

The number of pet animal dealers licensed during the year was 50, and 87 visits were made to their premises; 30 infringements were recorded and dealt with satisfactorily. The Liverpool Fire Service dealt with those matters relating to fire precautions and their recommendations were made special conditions of the licences.

The Animal Boarding Establishments Act, 1963

This enactment, which is based largely on the provision of the Pet Animals Act, 1951, came into operation on the 1st January of this year. Six establishments have been licensed and two other premises are making the necessary improvements or modifications prior to the granting of licences.

THE OFFICES, SHOPS AND RAILWAY PREMISES ACT, 1963

The year saw the launching of a most important piece of legislation; The Offices, Shops and Railway Premises Act, 1963, which was designed to secure the health, welfare and safety of most persons in non-industrial employment. These include office and shop workers, whether in the wholesale or retail trade, those who earn their living in warehouses, receiving depots, catering establishments of all kinds and persons who are engaged in certain work in railway premises. The provisions of the Act are similar in many ways to the Factories Act which has been the statutory protection for industrial workers over many years.

Environmental working conditions are referred to and certain general standards and requirements are laid down which will, no doubt,

be made more precise by regulations to be issued by the Ministry of Labour. Other matters such as first aid, action in the event of accidents, fire precautions and dangerous machines and practices have not been overlooked. Provisions with regard to sanitary and washing facilities, seating and clothing accommodation are also included.

The first step in the implementation of the Act was taken on the 1st May when employers in premises to which the Act applies had to register with the appropriate authority directed to administer the Act. The employer was required to provide information with regard to the number and sex of employees and the occupier of a building had to make an application for a certificate of means of escape in case of fire if more than twenty persons were employed or where more than ten worked on any floor other than the ground floor.

The checking, analysis and documentation of the thousands of forms was a prodigious task but extremely necessary before the Act could function effectively. The department also provided the Fire Service with information relating to all premises registered.

Certain classes of premises come within the jurisdiction of H.M. Inspectorate of Factories. These include those occupied by local authorities, police, fire authorities, courts of justice, railway undertakings in the vicinity of the permanent way and the Atomic Energy Authority, and also offices and canteens within factories. All other premises are the responsibility of the local authority except in respect of matters relating to fire which come within the purview of the fire authority, namely, the County Council in areas other than a County Borough.

By the end of the year 8,612 premises had registered in the City with the local authority and records were kept by the Health Department who have been authorised by the Council to administer the Act, except for provisions relating to fire precautions and means of escape. It is evident that the number of registered premises will increase considerably during 1965 as it has been found that many of the smaller employers are unaware of this requirement of the Act and have also been confused by other legislation concerning employment which came into operation about the same time.

When the whole of the Act came into operation on the 1st August, a selected team of qualified public health inspectors was allocated the task of carrying out a systematic inspection of premises in the centre of the City and dealing with special enquiries and problems which faced many employers who requested advice and information. By the end of the year 2,001 visits had been made and 262 cautionary letters sent with respect to infringements observed during inspections.

The Act requires employers to report on a prescribed form accidents occurring in premises if there is loss of life or if the injured

person is disabled and cannot do his usual work for a period of more than three days.

The incidence of accidents in premises covered by the Act is unlikely to compare with the number in industrial employment, but they do occur, and with the trends towards mechanisation in offices and shops the risk of accidents may be greater in the future in these classes of workplaces.

The number of accidents notified by the end of the year was 97. With one or two exceptions they were of a minor character.

One of the objects of accident notification is to give inspectors the opportunity of suggesting measures which might be adopted to prevent a recurrence of similar incidents and advantage has been taken of this on several occasions.

SUPERVISION OF FOOD SUPPLY

Close supervision of the food supply of the City has again been maintained throughout the past year. Public health inspectors with the additional qualification as meat and food inspectors have made daily visits to the Wholesale Fish Market, Queen Square, St. Johns Retail Market and Wholesale Fruit and Vegetable Market at Cazneau Street. In addition the various food and canned goods warehouses in the City are visited frequently and during the year 1,821 special food complaints made by representatives of the wholesale and retail trade have been dealt with satisfactorily.

Routine inspection is carried out on all poultry and game entering the wholesale market prior to sale to the retail trade; 7,033 lbs. were rejected and destroyed as a result of these inspections, due mainly to decomposition and refrigerator perish.

The Wholesale Fish Market supplies the extensive retail trade throughout Merseyside and adjacent areas. Daily inspections at the market resulted in the rejection of 55,780 lbs. of fish and 851 lbs. of rabbits as being unfit for human consumption.

The daily examination of fresh fruit and vegetables at Queen Square, the North Market and at various wholesale warehouses sited throughout the City has been maintained during the year and resulted in the rejection of 164,409 lbs. of various fruits and 204,312 lbs. of vegetables as being unfit for human consumption. In addition 35,450 lbs. of coconuts and other nuts were rejected.

Daily visits have been made to a variety of food premises including shops, warehouses and food factories for the purpose of inspection of canned goods and grocery sundries.

A large proportion of the foodstuffs rejected as being unfit for human consumption has been disposed of at a Corporation controlled tip and smaller consignments were removed by the City Engineer's

(Cleansing) Department, and subsequently tipped under their supervision.

An interesting facet of the many-sided duties of a public health inspector was brought to light when two leading wholesale firms asked advice regarding a large consignment of canned imported hams. Upon inspection it was found that a small percentage of cans were blown and sloppy, others appeared perfectly sound but one hour after opening the can the contents commenced to smell. Representatives of the exporting country were flown to Liverpool and it was found that at a certain factory, these hams had been in pickle for only two days instead of ten days. As a result of this investigation 50,188 lbs. of hams were rejected and subsequently tipped under the supervision of a public health inspector.

The examination of canned goods and grocery sundries resulted in the rejection of some 142,177 lbs. as unfit for human consumption. In addition some 8,526 packages of frozen foods were rejected, due in every case to the breakdown of refrigerator cabinets.

A breakdown of the various categories of canned goods etc., is set out in the table below:—

	<i>lbs. wt.</i>
Canned Meats	107,485
Canned Fruit and Vegetables ...	27,733
Canned Fish, Milk and Soups ...	1,641
Dry Groceries, etc.	5,318

To ensure compliance with the Merchandise Marks Act, 1,136 visits were made to provision merchants, butchers and greengrocers. In those cases where infringements were observed these were immediately corrected in the presence of the inspector. Routine revisits confirmed that the instructions given were being adhered to in every case.

During the year foodstuffs intended for export and which were required to be accompanied by a certificate of soundness to their destination, consisted in the main of bacon, canned goods, dairy cream cakes and various cuts and carcasses of meat. Inspections of 122 consignments were carried out and in each instance the foodstuffs were found to be fit for human consumption and export from this country, and the necessary certificate of soundness issued.

Investigation into food complaints which originated from members of the public has been carried out with regard to foreign bodies, and the question of nature, substance and quality of various foodstuffs. A total of 580 complaints was received, thoroughly investigated and completed generally to the satisfaction of the complainant.

MEAT INSPECTION

The year has been one of the most difficult in the modern history of the meat trade. It has been a time of high prices for livestock,

expensive meat, shortage of choice quality carcasses, fluctuating supplies of imported frozen and chilled meat and an unprecedented scarcity of veal calves.

The total number of animals slaughtered in Liverpool was 489,051. This figure was less than last year when 515,580 animals were dealt with, the main decrease being in the number of sheep and lambs by some 20,000. There was an increase of some 10,000 pigs, but the number of calves declined by nearly 4,000. The drop in sheep and lamb numbers was due to two reasons, first a bad lambing season, secondly, the continued purchase of stock by continental buyers, and the Liverpool market suffered in common with other large markets throughout the country.

Of the 489,051 animals slaughtered and inspected, 2,624 carcasses were wholly rejected as diseased and unfit for human consumption together with part carcasses from 12,555 other animals. In addition, organs from 111,939 animals were rejected for diseased condition.

The amount of diseased meat and offal rejected was 476 tons. All this material was dealt with in the Council's by-product plant within the abattoir, where it was rendered down and sterilised. The resultant inedible tallow and meat meal is sold for manufacturing processes and animal feeding stuffs. The plant also handles the blood from the slaughter units, which is dried, and sold as high nitrogen content fertiliser.

The meat traders as owners or agents are paid for the raw material (meat, offal, blood) the weight and type of meat being certified by the meat inspection records, and payment made by the Markets Department.

It is pleasing to report that this year, the incidence of tuberculosis in beef carcasses fell below one per cent, and this clearly underlines the success of the tuberculosis eradication scheme of the Ministry of Agriculture, Fisheries & Food. The number of carcasses found infected with tuberculosis this year was 460, consisting of 60 bullocks (0.17 per cent). 21 cows (0.11 per cent) and 379 pig carcasses (0.32 per cent) which is remarkable when the numbers involved—32,918 bullocks, bulls and heifers, 20,874 cows and 116,105 pigs—are taken into account.

The Swine Fever Order introduced by the Ministry in 1963 has also operated with success. Only in one instance were septicaemic (swine-fever) infected pigs detected and notified as result of routine, post-mortem inspection in the slaughterhouse.

The incidence of pyaemic infection in pig carcasses still gives cause for concern. Last year it was reported that 65 carcasses showed some bone lesions, and this year the figure has risen to 103. Nearly all

the lesions were found in the pelvis, sacrum, or lumbar bones and it is abundantly clear that it is much safer from a public health view-point, to require the splitting of all pig carcasses down the vertebrae as a slaughterhouse routine, than to sell whole unsplit carcasses.

On Liverpool market through the whole-hearted co-operation of the meat wholesalers, pork is sold either in sides or cut up into legs, loins, bellies, shoulders, or fores; and the sale of a whole unsplit pig carcass is becoming quite rare.

Out of a total of 2,660 calves slaughtered, 242 carcasses were totally rejected because of disease, mainly acute enteritis or pyaemia (joint ill). There has been an unprecedented shortage of veal calves for slaughter this year. Some of the reasons for this circumstance include the longer lactation cycle of milking cows, the decline in the number of farmers in milk production with its imperative demands in regard to milking, new broiler house techniques for intensive rearing of calves, and a ready sale for young beef.

The number of sheep and lambs slaughtered was 316,494. In general the quality was good, but at the back end of the year there was a depreciation. Another feature was the marked scarcity of tups (rams) for slaughter at the year end, contrary to our usual pattern of stock intake.

The number of carcasses wholly condemned for diseased conditions was 1,956, together with part carcasses from 5,869 other sheep or lambs (2,325 and 5,378 in 1963).

The diseased conditions met with during the year were the familiar ones, oedematous emaciation, chronic pleurisy, pneumonia, distomatosis, peritonitis, arthritic conditions, and inoculation sepsis. The number of sheep carcasses found infected with *cysticercus bovis* was seven (compared with two carcasses in 1963). Two generalised infections were condemned and the remaining five carcasses submitted to refrigeration treatment.

In addition to the seven sheep carcasses noted above, thirteen bullock and nine cow carcasses showed infection by *cysticercus bovis*. These cysts if consumed in under-cooked meat may lead to tape worms in the human being. For this reason, the carcasses were deep frozen for three weeks, which treatment renders the minute cysts sterile.

Apart from tubercular infections met with during routine inspection, 17 animals (two bullocks and fifteen cows) were sent in for slaughter by the veterinary officers of the Ministry of Agriculture Fisheries & Food as reactors to the routine tuberculin test.

Critical post-mortem inspection showed lesions in eight carcasses or offals. In nine cases there was no evidence of tubercular lesions in

organs or systemic lymphatics, and this fact was confirmed by microscopic or biological tests of selected tissue and lymphatic nodes, and laboratory tests carried out by the Ministry.

The number of animals slaughtered in the City during the year was 489,051. This figure includes the pigs slaughtered at the private abattoir, detailed as follows:—

Sheep	Calves	Pigs	Heifers	Cows	Bulls	Bullocks
316,494	2,660	116,105	697	20,874	87	32,134

All carcasses and offals were inspected at the time of slaughter either at Stanley abattoir, or the Woolton private abattoir, and there were only nine days in the year when slaughtering did not take place. The carcasses and offals of 127,118 animals were found to be diseased at the time of slaughter (120,922 in 1963), and this figure is approximately 26 per cent of the total number of 489,051 animals inspected—a slight rise on last year’s figure of 23 per cent. A summary of the diseased conditions requiring condemnation is set out in the statistical appendix.

The City Council decided that charges for the inspection of the carcasses and offals of animals slaughtered in the City would commence on 2nd December, 1963 as follows:—2s. 6d. per bovine (other than a calf), 6d. per sheep or lamb or goat and 9d. per calf or pig. The income received from the meat inspection charges during the first year’s working (December 1963—November 1964) amounted to £19,515.

The large quantities of frozen or chilled meat, lamb and mutton as well as offal (tails, kidneys, hearts, livers) “pitched” daily on the market are subject to inspection. The main defects in these commodities are mould growths, brine-staining or decomposition. During one week-end in July, the chilled beef from Yugoslavia arrived in poor condition due to refrigeration breakdown during rail transit and the entire consignment of good quality fores and hinds was detained for trimming and resulted in condemnation of approximately one ton of meat on account of decomposition.

Carcase meat sent into the market for sale from rural areas, and found to be diseased when reinspected has again caused concern. In particular, meat from four areas showed consistently poor inspection standards and the matter has been raised with those responsible.

Carcasses and meat dealt with in the market *excluding* the meat and offal from 489,051 animals slaughtered in the City were as follows:—

Origin	Beef Hinds/Fores	Carcases Mutton/Lamb	Carcases of Pork	Carcases of Veal
Imported chilled or frozen	40,697	776,255	25	—
Slaughtered outside Stanley Abattoir ...	21,502	146,575	84,441	5,314

In addition to the above 132,591 packages of imported meat were handled.

During the year 123 licences were granted to slaughtermen and ritual cutters of the Shecita Board by the City Council. In addition 122 licences were granted to Mohammedans mostly seamen, for the ritual slaughter in Stanley Abattoir of sheep, the carcass meat being destined for Mohammedan ships' crews.

The meat-conveying vehicles working out of Stanley Market are inspected daily to see if the requirements of the regulations are observed. In general a good standard is maintained and the long-distance meat transporters fitted with mechanical refrigeration are amongst the best in the country.

On four occasions it was necessary to require meat to be unloaded from private motor cars. Shooting brake types of vehicles specially adapted to carry small quantities of meat on metal platform trays are still popular with the retail butcher who requires quick transport from market to shop.

Facilities are available, within the market curtilage, for pressure-hose washing of vehicles.

The system of dealing with bovine stomachs described in previous reports has continued, and it is abundantly clear that the only permanent hygienic solution to this problem is the installation of a cattle line-slaughter layout.

Work on the new refrigeration unit and meat conditioning rooms has proceeded steadily during the year. The structure shell, and floors are set and work on insulation has been started.

When completed, this large refrigerating unit will ensure properly-conditioned meat and an adequate capacity to deal with all requirements in this field.

Various organs and glands for example pancreas, adrenals, ovaries, thyroids, pituitaries, taken from sound carcasses, after inspection, were collected in quantity and sent for processing for medicinal use. In addition some 38 tons of distomatotic livers were supplied to pharmaceutical manufacturers for making liver extract.

As in former years, requests for supplies of uteri, cysts, eyes, hearts, and blood from various departments of the Liverpool University, training colleges, schools and hospital laboratories have been met. Morbid specimens were also set up for the Liverpool Veterinary School, and the examinations of the Royal Society of Health.

The training course for those preparing for examinations in meat and food inspection or food hygiene was well attended. Thirty-three students received a grounding in the theory and practice of meat inspection, fish inspection, control of milk supplies, and general food inspection together with the law relating thereto. Practical work included visits to processing dairies, ice cream plants, food preparing factories, docks and coldstores, abattoir and meat market.

In addition to successful students in the meat and food inspection, or food hygiene examinations of the Royal Society of Health, thirteen out of fifteen students successfully passed the final examination in meat and food inspection in the first of the four-year course Diploma examinations for public health inspectors to be held in the provinces, at Liverpool.

FOOD HYGIENE

Inspections under the Food Hygiene (General) Regulations, 1960, were made for the purposes of attending to complaints of unsatisfactory conditions in premises, unhygienic food handling by staff, or of contaminated or unsound food. These visits which totalled 17,748 in the year, included the special emergency measures connected with the location of supplies of certain consignments of corned beef, and the subsequent detention of the suspected meat.

There were 2,628 infringements dealt with by informal or formal action, and Court proceedings in respect of the food trade involved a total of 30 informations, with penalties of £147 and £39 10s. 0d. costs.

The inspections of cafes, restaurants and snack bars were mainly in connection with complaints, whilst routine visits to these premises were made as other duties permitted.

Whilst conditions generally are greatly improved there are many instances which confirm that there is a need for more detailed supervision by inspectors and a greater necessity for training personnel in clean food handling and the causes and dangers of the spread of infection.

During the year, in co-operation with the Royal Society of Health, a series of lectures in food hygiene has been held at the University of Liverpool School of Hygiene. These are certificated courses in the hygiene of food retailing and catering, and have proved invaluable in providing accurate and practical teaching for personnel in all sections

of the food trade. Many employers have encouraged their staffs to attend the course and, in a number of cases, pay the course fees.

In addition to the above courses, arrangements are made for members of this department to give talks to employees and managements, also, invitations are accepted to speak to voluntary and church organisations.

Inspections of street traders' vehicles and barrows are made for the purpose of the Food Hygiene Regulations and the Merchandise Marks Acts, and appropriate action has been taken informally and by Court proceedings.

Ice Cream

There are now some 1,930 establishments engaged in the ice-cream trade. New applications for registration under the Liverpool Corporation Act, 1936, Section 78, totalled seventeen vendors and there were twenty applications for transfers of ownership of existing businesses.

New machines for producing soft ice cream from pasteurised powder or pre-mixed ingredients have been installed in a number of shops. Before approval is given in these cases a careful inspection is made of the premises, the facilities for cleaning and sterilising the equipment and for the satisfactory storage of ancillary equipment and stocks of pre-mixed material.

The inspections of clubs during the year have been mainly in connection with applications under the Licensing Act, 1961. Non-licensed clubs have also been visited from time to time to ensure that a satisfactory standard of hygiene and general cleanliness is maintained.

THE ADULTERATION OF FOOD AND DRUGS

During the year 3,578 samples of food and drugs were procured and analysed, and of this number 129 or 3·6 per cent were found not to be genuine or otherwise irregular. This figure was precisely the same as last year.

The samples taken comprised 693 formal and 2,885 informal. An informal sample is one procured without the statutory intimation to the vendor that it is to be analysed. Valuable information as to irregularities may be obtained in this way. Milk being such a widespread and staple source of food supply must figure prominently in any sampling programme, and 2,323 samples of milk were procured for analysis.

Statutory action was taken in respect of milk, sausages, bread and fish cakes and fines totalling £105 0s. 0d. with £39 10s. 0d. costs were imposed.

During the year 211 samples of ice cream, ice lollies and frozen

confections were submitted for chemical analysis or bacteriological examination. A total of 133 ice cream samples were examined bacteriologically and 61 were found to be Grade 1; twelve Grade 2; fifteen Grade 3 and 45 Grade 4. Analysis of 76 ice cream samples proved that all complied with the legal standard.

In addition to the bacteriological examination of ice cream and milk 170 samples of other foods were examined during the year for their suitability for human consumption, including examination for food poisoning organisms. The foods selected were usually those which were to be eaten without further preparation or cooking and included meat pies, sausage rolls, sandwiches, cooked meats, cakes and shellfish. The results were generally satisfactory.

Examination of Milk

Regular routine samples of milk were taken from processing firms and milk producers within the City, and the standard of cleanliness and efficiency of pasteurisation continues to be satisfactory. The total number of milk samples submitted to the Public Health Laboratory for examination was 1,811, comprising 1,656 heat-treated milks and 155 raw milks. Of the 1,656 heat-treated milk samples four failed to satisfy the phosphatase test for efficiency of pasteurisation; in every case the processing plant was examined and the fault immediately rectified. In addition 174 samples failed the methylene blue test for bacterial quality. The majority of these failures were from samples obtained from milk vending machines and samples processed outside the City area.

Twelve methylene blue failures were reported from the 155 tubercular-tested raw milk samples taken, and the result of guinea pig inoculation of the milk tested for the presence of tubercle bacilli proved that one sample was positive.

The milk supply to hospitals and aged persons hostels is regularly sampled and 119 samples were tested chemically and bacteriologically. There were 161 samples taken from these establishments and all samples proved to be genuine.

The milk supply of the City consists of heat-treated milk or tuberculin-tested milk (which now bears the designation "Untreated" milk), and a small percentage of the daily consumption consists of this untreated milk. Of 155 samples of this milk, 139 were specially tested for *brucella abortus*. These samples were procured from milk produced within the City area and from farm-bottled milk produced in outside areas. Samples from one country producer proved to be positive. The Medical Officer of Health for the area was immediately contacted and investigations into the herd are proceeding.

One sample taken from City herds was found to be positive *mycobacterium tuberculosis*. This milk was already being sent for

pasteurisation before sale, therefore it was not necessary to serve the requisite notice on the milk producer. The area Veterinary Officer of the Ministry of Agriculture, Fisheries & Food was notified and investigations into the herd have been carried out. Since the original sample was taken one cow has been sold for slaughter and two cows have ceased lactation.

New registration certificates in respect of milk distributors and their premises numbered 38 and a similar number of licences was required for the sale of designated milk; in all 1,259 visits were made.

Public health inspectors maintained a close watch on all the distributors of milk so as to be assured that the requirements of the Milk and Dairies (General) Regulations, 1959, and the Milk (Special Designation) Regulations, 1963, were at all times being strictly complied with.

As regards registration of dairies, the frequent check on all registered premises revealed that 39 businesses had ceased to operate, 26 dairies required to be transferred from one person to another and 38 new registrations were required to be effected.

During the year 382 visits were made to milk processing plants for the purpose of sampling when the installations were in operation. Special attention was paid to the temperature, the functioning of the recording and indicating instruments and the holding times.

Two processing firms ceased to operate during the year, therefore there are now five pasteurising establishments in the City, consisting of three high-temperature short-time pasteurising plants and two of the batch or holder type. In each instance the units are coupled to mechanical bottle-washing plants, filling and capping machines, with adequate cold-room accommodation. In addition there are three milk sterilising plants in the City.

One processor has undertaken a complete replacement of the pasteurising and bottle-washing plants during the year, and another has introduced three milk-cartoning machines into the plant. The processing dairies continue to be well maintained and effective in operation.

The Liverpool Corporation Act, 1921 empowers the local authority to grant licences to all persons keeping dairy cows, store cattle and pigs; subject to the premises being of the required standard. There are eighteen cowsheds and 27 piggeries in the City.

Other Sampling

The Liquid Egg Pasteurisation Regulations, 1963 came into force on the 1st January, 1964, and lay down the temperature and holding time for the pasteurisation of liquid egg. This product is widely used in the bakery trade and the Regulations forbid the use of unpasteurised

liquid egg with the object of preventing the ingestion of organisms capable of producing food poisoning in the consumer. There are no egg pasteurisation plants in the area and 41 samples were taken during the year and submitted for alpha-amylase test and all samples proved satisfactory.

During the year 31 samples of animal feeding stuffs and fertilisers were obtained from City mills for analysis. With minor exceptions all samples were found to conform with the manufacturer's statutory statement.

FACTORIES INSPECTION

Section 153 of the Factories Act, 1961 requires the Medical Officer of Health to include in his annual report particulars relating to the administration of the Act by the local authority. The prescribed information is given in the statistical appendix.

Since the Offices, Shops and Railway Premises Act, 1963 came into operation on the 1st August, 1964, the contact which has been maintained for many years in this area, between the district inspectors of factories and the public health inspectors has become closer and this has been an advantage in respect of problems arising in industrial premises.

Clean food demands that personnel are provided with the necessary facilities for personal cleanliness and that the environmental working conditions are of a high standard, higher as a general rule than required by factory law.

Food factories are also visited more frequently by public health inspectors for the purpose of the administration of the Food Hygiene (General) Regulations, 1960, than would be necessary under the Factories Act,

Employers who engage outworkers are required by the Act to submit returns twice a year giving the names and addresses of those persons who have undertaken this type of work. The premises in which they operate are sometimes factories and, on occasions, dwellinghouses, which are visited to ensure that environmental conditions are satisfactory.

Details are as follows : —

(1) Number of outworkers during the year...	...	...	202
(2) Number of returns received from other authorities	...	...	5
(3) Number referred to the Medical Officers of Health of districts outside the City	...	...	11

Employment agencies are licensed annually and controlled by byelaws made under the Liverpool Corporation Act, 1927. Periodical visits are made to ensure that the conduct of these businesses is satisfactory. At the end of the year 37 licences were in force permitting agencies of this character to operate within the City.

Rag Flock and Other Filling Materials Act, 1951

At present the following premises where rag flock is manufactured, stored or sold are licensed :—

Licensed to manufacture rag flock...	...	1
Licensed to store and sell rag flock	...	6
Registered for use of filling materials	...	78

The number of samples submitted to the prescribed analyst was 26. All samples were found to conform to the requirements of the Act. Agriculture (Safety, Health and Welfare) Provisions Act, 1956

During the year 53 visits were made to nursery gardens, farms, market gardens and smallholdings, and all were found to comply with the requirements of the Act.

INDUSTRIAL NUISANCES

The incidence of complaints of nuisance arising from industrial activities has been significantly less than former years.

This is mainly due to the fact that the animal by-products plants in the abattoir have been operated with much greater care.

Offensive Trades

Previous annual reports have stressed the fact that the existing plants are quite capable of dealing with effluvia associated with the offensive trades and that emissions of foul-smelling vapour and gases in the past were due in the main to the human element, which is usually difficult to pin-point and control owing to the number of firms and plants undertaking this work. The improvement noted during the year has confirmed this view.

Other nuisances of this character which were investigated included fumes from a doughnut-making machine in a bakery, which was remedied by removing the appliance to more suitable premises, and smells from a chemical used in a dry cleaning establishment, which were eliminated by the installation of ducting leading to a terminal well above the roofs of adjoining houses.

Noise

The relatively few complaints of irritating noise which have been received by the department during the past two years seems to indicate that the initial enthusiasm and interest, aroused when the Noise Abate-

ment Act came into operation in November, 1960, has now subsided. Nevertheless, investigations were necessary in some cases and these usually involved visiting the complainants and premises of offenders during the evening or in the early hours of the morning when background noise was at a minimum.

In one case, the residents of a row of houses found that the noise from the machinery installed in a large new extension to a factory interfered with sleep. Sound-level readings were taken after midnight, as the factory operated a three-shift system, and the cause of the main and secondary noises was ascertained. Appropriate notices served on the firm had the effect of acoustic consultants being engaged and ultimately the necessary steps were taken to reduce the noise to a reasonable level. Similar action was also taken in respect of excessive noise from other factories.

The most prominent nuisance was in respect of a large new works in the north end of the City, in which the grinding mills gave rise to a high frequency noise heard in the evenings more than a quarter of a mile away. This was attributed to teething troubles in the new factory but the firm was pressed to call in acoustic experts. New equipment was eventually installed which eliminated the offending sound.

Minor complaints of noise from the careless handling of metal parts, siting of compressors, fans, barking dogs and the banging of car doors were dealt with by urging offenders to consider their neighbours and this action invariably achieved the desired result.

Dust

Only two complaints of industrial dust were received during the year, one referred to a defective dust-collecting plant in a furniture factory where a new cyclone was eventually fitted following action by this department, and in the second case lime dust from a mortar mill assembly was effectively checked by raising and reconstructing the walls of the premises.

LICENSED PREMISES

The reconditioning of older public houses has proceeded steadily during the year and has given the proprietors an opportunity to modernise bars and equipment. Laminated plastic surfaces and stainless steel equipment are rapidly replacing timber tops to counters and sinks, and washing-up facilities have been brought up-to-date in most public houses. The standard of environmental cleanliness has also improved. This has been mainly due to the fact that redecoration programmes have been advanced and floor linoleum has given way to more satisfactory materials which are readily cleansed.

In proposed redevelopment areas in the City it is planned to rebuild a substantial number of aged public houses and a smaller

number of modern premises will be erected to serve these areas. Plans of new public houses show that the construction, arrangement and equipment will enable licensees to comply without difficulty with statutory requirements and customers will also be provided with facilities such as wash basins, which have usually only been seen in the larger and more modern premises.

A noticeable feature is the gradual disappearance of the drainage waste pipe from the drip tray of the beer engine cabinet. Overspill and waste beer thrown into the drip tray used to drain into a bucket located in the base of the cabinet or in the cellar, where it was often returned after filtering into one of the casks of liquor. The resale of waste beer in this manner was unhygienic and was difficult to prove. The brewery companies also regard this practice as reprehensible and require waste beer to be thrown away. Overspill beer is now collected in small containers and these may not be necessary when the use of lined drinking glasses becomes universal and the dispensing of an accurate measure is easier. A number of visits have been made to licensed premises and trained visitors from breweries now co-operate in this work.

Licensing Act, 1961

During 1964, fifteen applications were received by the Clerk to the Justices for new club registration certificates and following adaptations and improvements to the premises, in accordance with specifications issued by the department, seven of these applications were approved and subsequently the Stipendiary Magistrate granted the necessary registration certificates.

Under the provisions of this enactment the Stipendiary Magistrate is empowered to renew a certificate of registration for a period of twelve months but after the second and subsequent application, if the Court thinks fit, the certificate can be renewed for a period of up to ten years. During the year 181 clubs were reinspected when applications were made for renewal of certificates and in seventeen cases, specifications were issued necessitating works to be carried out at an estimated cost of £5,000 together with new applications where work has been carried out at a cost of £1,000. It is estimated that since the Act became operative, approximately £86,000 has been spent on improving club premises throughout the City.

The Stipendiary Magistrate renewed registrations in respect of 251 clubs and applications in respect of five clubs were withdrawn. Four applications were subsequently refused by the Magistrates where the applicants had failed to satisfy the Court that the premises were satisfactory. Seven clubs surrendered their registration certificates; six clubs were disqualified by the Magistrates and the remaining eight clubs have not completed the works required.

In addition to the registration certificate 40 premises were visited and examined in connection with applications for Justices' Licences to hold excise licences for the sale of intoxicating liquor. These included proprietary clubs, licensed restaurants, bingo halls, off-licence premises and in 27 cases approval was given after the works required had been satisfactorily completed; four applications were refused; seven applications were withdrawn and the remaining two applicants had not completed the necessary improvements in accordance with the requirements of the Act, at the end of the year.

ATMOSPHERIC POLLUTION

Smoke Control Areas

Three further Smoke Control Orders became operative during the year and two more Orders have been submitted to the Minister of Housing and Local Government for confirmation.

Abatement of Industrial Smoke

Smoke emissions from chimneys serving industrial boiler plants continue to become less frequent, and very few direct complaints were received from the public during the year. Routine inspections and observations were maintained by the public health inspectors and it was not necessary for formal action to be taken on any occasion.

The continued introduction of diesel-propelled river craft has completely altered the scene of shipping on the Mersey and only isolated instances of smoke emission occurred, mainly from coal-fired or old oil-fired vessels when running against the tide or manoeuvring in mid-river.

Clarence Dock Power Station and Large Industrial Undertakings

During the year the power station was converted from coal-burning to oil-firing equipment. Although the emission of grit and dust has been reduced considerably, certain smut emission is still a problem from major oil burners in this area.

These occurrences occupied the public health inspectors and the alkali inspector for a long period, until, as a result of close liaison by all officers concerned, the causes were located, and remedied.

Railways

The continued progress achieved by British Rail in removing out-worn coal-fired locomotives continues. Smoke emissions still arise at shunting depots and marshallings yards and, unfortunately, some of these yards are situated within smoke control areas and tend to detract from the achievement which has been obtained by the introduction of such areas. Steam locomotives are steadily being reduced in number and will disappear almost completely in the near future.

Smoke Control

In accordance with the programme policy, surveys of two more Smoke Control Areas were completed, and the details submitted for declaration by the City Council, and confirmation by the Minister of Housing and Local Government.

There is now a plentiful supply of smokeless fuel which is suitable for burning on improved grates. The North Western Gas Board informed the Minister of Power that they were unable to guarantee any additional supplies of soft coke for future Smoke Control Areas, and, in consequence, the Nos. 17 and 18 Smoke Control Orders allow for appliances to be installed which will burn any authorised fuel.

This policy will, in future, increase the cost of the Smoke Control programme, but nevertheless when confirmation of the last two Orders is received it will allow alterations to commence and the extent to which prices will rise can then be fully assessed.

The area covered by Nos. 14 and 15 Smoke Control Orders became operative on 1st June and in respect of No. 16 Smoke Control Order on 1st July. Delay was experienced in the completion of all the works of alteration due to the Circular which was issued as a result of the fuel supply position, but once again it is possible to report that the co-operation of owners and occupiers of houses affected by the Orders, enabled the public health inspectors to ensure that the majority of alterations required were completed with the minimum delay.

All the houses owned by the Local Authority and affected by the recent Smoke Control Orders have been inspected, and the firegrates which required removal or alteration have received attention. The continued liaison between the inspectors, contractors and tenants enabled the various types of alterations to be carried out expeditiously. In consequence, minimum cost was achieved with maximum efficiency.

Warren Spring Laboratory

This section of the Department of Scientific and Industrial Research continues to accept the results of the investigation into atmospheric pollution in the City and correlate the readings which are forwarded to them each month from three different types of instruments. A glance at the tables in this report will indicate that reductions in solid matter and sulphur oxides continue to occur.

Operative Smoke Control Areas

Fifteen Smoke Control Orders are now operative. As well as the Central Area of the City being subject to Smoke Control Orders, the wards of Aigburth, St. Mary's, Speke, Allerton, Woolton, Childwall and parts of St. Michael's, and Church are also within operative Smoke Control Areas. The number of premises now affected is 50,000 and a further 11,000 are included in the two Orders now awaiting confirmation.

Special Visits

The services of the public health inspectors are still requested by engineers, architects, works managers, contractors and householders. Advice is given on the desired instrumentation of boiler plant, heights of chimneys, methods of firing and attention to furnaces, the fixing of domestic firegrates, and their efficient use when burning solid smokeless fuel.

A total of 190 new furnaces was installed and approval was requested in respect of 69 installations all of which were approved without modification.

Plans of proposed new chimneys examined in accordance with Section 10, Clean Air Act, 1956 numbered 118. In four cases the height of the chimney was increased in order to meet the requirements of the Authority.

RODENT CONTROL

The rodent control section continued to work throughout the year to eradicate rodent pests from buildings, lands and sewers in the City.

Although many rat and mouse infestations were found either by notification or detected by routine survey, they were generally of a very slight degree.

Contrary to the expectations of many of the public, when St. John's Market and the buildings in the vicinity were demolished, all the premises were found to be free from rat infestation. This was, no doubt, due to the special treatments of the sewers in the area, and although no rat infestation was found, the market itself had slight mouse infestation and this was soon cleared.

Practical assistance for the destruction of rats and mice was given to owners and occupiers of buildings and sites upon request, and in addition to the considerable amount of operational work undertaken, steps were taken whenever necessary with a view to preventing further infestation.

The possibility of food contamination by rats and mice always exists where they are present and routine surveys were carried out at food factories, warehouses, retail food shops, and catering establishments as a preventive measure.

Continuous attention to suspected defective drains and sewers, to the remedying of defects in conjunction with systematic treatments of lands, building and sewers has helped to remove the health dangers from rodents and the risk of food contamination by them.

Systematic Survey

Systematic routine survey of lands and buildings in the dockside and central areas and in other places, where rodents are most likely to

be found, was again carried out during the year. Unfortunately, due to staffing problems, the number of surveys carried out was much reduced. The infestations detected during these surveys were only of a minor degree.

The rodent control staff examined 19,911 sites during the year in connection with routine survey and investigation of complaints, and a further 65,885 visits were made entailing operational work and re-examination of buildings and lands during or following treatments. Public health inspectors also made, in connection with other matters, 75,105 inspections.

Rodent Infestation

During the year 5,107 sites were found to be infested, 3,169 by rats, 65 by rats and mice, and 1,873 by mice only, but the majority were only slightly infested. Details are shown in the statistical appendix.

The sites principally affected were warehouses and factories within the dockside districts as may be expected, but with a continual fall in degree of infestation. The central areas of the City are still maintaining a decrease in rat population as a result of the steps taken year by year.

The transportation of rats, and mice in particular, conveyed in goods delivered to premises was again the means of causing occasional slight infestation during the year. The conveyance of rats in this way would account for ship rats being found some distance away from the dockside areas.

The rat infestations found within the middle belt of the City were again mainly slight and for the main part confined to yards of dwelling-houses and public passages.

As part of the investigations to trace the source of common rat infestations, references relating to drains to the total of 1,217 were sent to the public health inspectors, 972 relating to dwellinghouses and 245 for other premises. Of the drainage tests applied during the year defects were found in 307 and 84 cases respectively, and the necessary action was taken to have them remedied.

Complaints

Complaints relating to rats and/or mice to the total of 9,512, an increase of 2,321 over the previous year, were received and promptly investigated. Of the 1,854 dwellinghouses affected by rats, 1,479 infestations were solely confined to the external parts of the premises.

Occupiers generally have become accustomed to availing themselves of the services of the rodent control section and requests for assistance were made on the slightest sign of rats or mice in or near their premises. Details of infestations and disinfestations are shown in the statistical appendix.

Rodent Disinfestation

During the year 4,425 buildings and lands were disinfested from rats and/or mice.

The practice of providing free assistance to the occupiers of dwellinghouses was continued during the year with an appreciable change in the number requiring their premises to be disinfested.

Owners or occupiers of buildings and lands other than private dwellinghouses who desire the assistance of the department for the destruction of rats or mice are required to reimburse the local authority for the expenditure incurred. The demand for such assistance is quite appreciable and 1,572 requests, a decrease of 441 from the previous year were received. Occupiers, in addition, requested the department to examine their premises at regular intervals on a servicing basis in order to maintain expert supervision to detect the slightest indication of rodent activity, and so give prompt and skilful attention when disinfestation is required.

A wide variety of business premises in all districts of the City were dealt with in this way and the full cost of both the inspection and operational service was charged to the occupiers concerned, the work being in no way subsidised out of the rates. All the occupiers readily agreed to the recommendations made by the department for the actual destruction of rats and mice, and it was not necessary to serve notices for treatment as specified under the Act.

Of the 4,577 infestations and reinfestations remedied during the year, 4,193 were treated by rodent operatives and of these 4,172 were cleared by the use of poisons and the remaining 21 were remedied by trapping only. The effectiveness of the rodenticides used is apparent when reference is made to the number of infestations remedied on one poisoning treatment, 3,489 out of a total of 4,172. Of the others 528 required two treatments, 132 three treatments and 23 four or more treatments. The remaining 384 infestations were remedied by the occupiers or their contractors under the guidance and supervision of the rodent control inspectors or by the repair of defective drains under the supervision of public health inspectors.

It is estimated that at least 18,887 rats in buildings and on lands were destroyed during the year as a result of poison treatments; 2,402 dead rats were actually collected during operations and 170 were caught in traps. The species of rats collected were 1,463 *rattus norvegicus* ("brown" or "common" rat) and 1,109 *rattus rattus* ("black" or "ship" rat). Of the rodents collected 113 were sent to the Public Health Laboratory for examination and the remainder were burnt.

Although there is no reliable formula available for calculating the kill in relation to the poisoning of mice, there can be no doubt that the

number destroyed by this method is quite considerable when taking into account the large amount of poison bait actually consumed by mice, namely 8,540 ounces.

Rat Destruction in Sewers

With the main object of reducing rat infestation of buildings and lands that may have its source from the sewer, maintenance treatments for the destruction of rats in sewers were again applied during the year with satisfactory results, as indicated in the table in the statistical appendix.

There are 26,318 sewer manholes in the City and the total baits eaten or partly eaten by rats during the maintenance treatments carried out during the year were 1,836, 1,620, and 2,062 respectively compared with 9,329 on the initial treatment in the year 1953.

Included in the 2,062 bait takes during the last treatment are 103 takes recorded after treatment of the part or whole divisions not normally treated but dealt with by annual test baiting.

In the outer districts of the City where sewers had been previously found to have little or no rat infestation, and in the divisions in which sewers had been disinfested by maintenance treatments, test baiting was applied as a precautionary measure and details are shown in the statistical appendix. Where evidence of rats was found during the test baiting, treatments were applied to localised infestations, however slight.

During the work of preparing sewer manholes for baiting it was necessary to refer to the City Engineer's Department 579 items of work that required attention before treatments were applied. The items included the removal of rubbish from baiting points, clearing of choked or partly choked sewers and easing of manhole covers, and prompt attention was generally given to these matters.

CITY ANALYST

The City Analyst is concerned with chemical investigation of the food we eat, the water we drink and the air we breathe.

Samples of water and air are freely available, but samples of food are obtained by the inspectors of the Health Department, having been purchased by them from the various sources available to the public, and are submitted for investigation as to their suitability for human consumption.

MILK

Of the foods analysed, the most numerous samples were those of milk. The reason for this is, of course, that there are a large number of sources and the milk is only available for a short time between production and consumption. Most samples are taken as the milk comes from the farmer to the pasteurising plant, as from that stage the source of it cannot be traced and it is sealed in identical bottles from each plant which cannot be distinguished.

The summary of results of the milk tested during the year is as follows:—

Total Number of Samples	...	2,382
Average Fat	... ..	3.71%
Average Solids-Not-Fat	... ..	8.76%
Average Total Solids	... ..	12.47%
Adulterated Samples	50 =	2.0%

The adulterated samples consisted of the following:—

Deficient of Fat	... ..	15
Containing added water	... ..	33

In two cases insects were found in milk bottles, and in one case the milk was stated to be very sour when supplied.

The proportion of adulterated samples does not give a true picture of the position, as when a defective sample is reported it is followed up and may result in half-a-dozen samples from the same source. Thus the number of adulterated samples was derived from a much smaller number of sources of adulteration.

As usual the abnormal milk (deficient of non-fatty solids, but not containing added water) nearly all occurred in the same season, in the early spring, when cows change over from winter cake feeding to fresh grass. The monthly averages of total solids and fat show that the solids were lowest at this time.

There has been a movement over the last few years to fix the amounts of fat and non-fatty solids below which the milk was to be taken as below standard, either by the abstraction of cream, the addition of water, or the incorrect maintenance of herds resulting in the production of abnormal milk.

OTHER FOODS

Of the “made-up” foods the most unsatisfactory composition was that of fish cakes, which are required to contain at least 35 per cent of fish. Out of thirteen samples, five contained less than half this amount and four others were between 20 and 40 per cent deficient.

Two samples of fish paste which claimed “added butter” were found to have been made up with other fat, probably margarine.

Although there were many instances of sausages not being satisfactory (seventeen out of 74 samples), there were only five cases where the total of fat and lean meat was slightly less than the accepted standard. In seven cases the amount of fat was greater than the amount of lean meat. The Food Standards Committee recommended that the proportion of fat should not exceed 50 per cent of the total meat content. In three cases the presence of sulphur dioxide preservative was not declared, and in one sample the sausage contained nearly twice the permitted amount. One sample contained a fragment of iron, apparently derived from the mincing apparatus.

A sample of brawn was in a most unsatisfactory condition, being in a decomposed state and smelling badly, and it liquefied on keeping a short time, even in the refrigerator.

The recommendation of the Food Standards Committee regarding meat pies is that they should contain at least 25 per cent of meat (with a certain allowance for variation between individual small pies of 3 oz. and 4 oz. weight). In two cases it was found that the average meat in seven pies was 15 per cent and in a further six, 17 per cent.

CANNED MEATS

There are recommendations regarding the meat content of canned meat products which have now been generally accepted since they were put forward in 1962. These vary from “canned meat” (unqualified) which must contain not less than 95 per cent meat to any meat product (other than meat pie) which claims meat as its chief ingredient, which must contain at least 35 per cent. Meat pies should contain 25 per cent meat. Canned meat products examined which did not comply with these recommendations were as follows:—

MEAT (95% MINIMUM)

"Chopped Ham and Pork"	contained 90% meat
------------------------	--------------------

MEAT WITH GRAVY (75% MINIMUM)

"Canned Meat with gravy"	contained 70% meat
"Canned meat with gravy"	contained 57% meat
"Casserole Steak"	contained 69% meat
"Casseroles Steak"	contained 53% meat

MEAT ROLL (65% MINIMUM)

"Beef Loaf"	contained 62% meat
-------------	--------------------

MEAT ROLL WITH STUFFING (50% MINIMUM)

"Pork Roll" (stuffed)	contained 43% meat
"Pork Roll" (stuffed)	contained 43% meat

MEAT PUDDING (35% MINIMUM)

"Meat Pudding"	contained 31% meat
"Meat Pudding"	contained 31% meat

MEAT PIE (25% MINIMUM)

"Meat Pie"	contained 19% meat
------------	--------------------

OTHER MEAT PRODUCTS (35% MINIMUM)

"Irish Stew"	contained 29% meat
"Irish Stew"	contained 30% meat

The Food Standards Committee recommended that a declaration should be printed on the label of canned meat products indicating the kind of product being sold, and this would certainly enable the public to know to what they are entitled.

Relatively minor irregularities in the labelling of canned goods were (a) a can labelled "Chicken Casserole" had in its ingredients "chicken, veal . . ." and it should therefore have been labelled "Chicken and Veal Casserole"; (b) the items listed in the ingredients of a can of "Mixed Grill" were in the wrong order, and (c) the sausages in a can of "Sausages in Brine" weighed 7.82 oz. and not the 8 oz. declared, a deficiency of $2\frac{1}{2}$ per cent.

IRREGULARITIES

There were several instances of canned goods in which the contents included tin dissolved from the unlacquered interior surface. There is little evidence of danger to health from the amounts of tin which may be ingested in such cases, but amounts in excess of 250 parts per million of food signify excessive attack and acidity and are therefore objectionable. Eight specimens of canned goods (mostly fruit in syrup) contained such amounts, ranging from 250 to 490 parts per million. One sample of curry powder contained a slight excess of copper, but with these exceptions, no appreciable metallic contamination of food was found.

There were some cases in which the Vitamin content of a food was different from what the label declared or led one to believe. A sample of apple drink only contained 5 milligrams of Vitamin C per fluid ounce although the label claimed 10 milligrams, and a sample of tomato juice 4.4 milligrams against 5 milligrams per fluid ounce declared. Another sample of apple juice claimed 30 milligrams of vitamin C per fluid ounce but only contained 9.1 milligrams.

A sample of suet marked "flaked" contained 85.6 per cent beef fat. Suet itself must contain at least 99 per cent of beef fat, and if mixed with starch and labelled "shredded suet" must contain 83 per cent of beef fat. Another sample which was labelled "shredded suet" contained only 79 per cent of beef fat.

A "fruit curd", which should contain 4 per cent of fat and 1 per cent of dried egg solids was deficient in these respects, only containing 2.6 per cent of fat and 0.4 per cent egg solids. A "cream soup" contained only 2.2 per cent of butter fat instead of the 2.5 per cent agreed in the Code of Practice. Samples of marzipan were deficient of almond in three cases, with 23 per cent, 19 per cent and 21 per cent of almond nut instead of 25 per cent.

Excesses in samples included 16.3 per cent of water instead of the maximum of 16 per cent in butter, a variable quantity up to 1060 mgms of "creta praeparata" in white flour instead of an amount between 235 and 390 mgms per 100 grams, and a vegetable oil contained a slight excess (110 instead of 100 parts per million) of the antioxidant propyl gallate.

Miscellaneous irregularities included a rancid "double cream", a mouldy "cheese spread" (which appeared to be faulty due to a defective foil wrapper), a dirty sample of lard, and a series of ice "lollies" which were contaminated with traces of detergent, probably due to inefficient rinsing of the moulds.

A labelling offence noted was a "soda bread mix" on which there was no list of ingredients.

INSECTICIDES

The fresh foods (fruit, vegetables, etc.) which were submitted were examined for deleterious matter of a chemical nature which might have gained access. These samples included not only those on sale locally, but also many on importation. They were examined for chemicals (washes, sprays, etc.) which may have been used by the growers, packers or importers for the prevention of insect, mould or fungus attack, all of which might not have disappeared or been removed before the foods reached the public. No traces of any such contamination or residues were found in any case.

Groundnuts in particular were examined on importation to make sure that "aflatoxin" (a poison produced by certain moulds, which played havoc with the turkey market the previous year) had not developed on them, as it might do if these nuts were not properly dried out before packing for shipment. This toxin was not discovered on any occasion during the year.

Certain plastic toys which were sold along with sweets caused some alarm, as it was found that these toys contained appreciable amounts of lead, as much as 0·2 per cent. Investigation showed that the lead was incorporated in the plastic material of these toys, and could not be extracted by even prolonged action of digestive juices, either natural ones or synthetic ones of much higher solvency. A watch is kept that any toys which can be sucked do not contain lead which can be ingested on sucking or chewing or even swallowing.

DRUGS

The samples of drugs examined were on the whole very satisfactory, the only irregularities being one cough syrup in which the amount of Vitamin C was in considerable excess of that stated, and two indigestion preparations, in one of which the amount of kaolin in the tablets was in excess of the amount stated and a mixture which contained less bicarbonate of soda than was declared on the label.

FERTILISERS AND FEEDING STUFFS

Liverpool is one of the big centres at which feeding stuffs for animals are produced, and as an official agricultural analyst, the City Analyst examines samples of these feeding stuffs to see whether they conform with the Statutory Statement which must be given with them. It was found that the amounts of fibre and oil were in every case satisfactory but in three cases the albuminoids present were less than the amount stated and in another three the amounts were greater than that stated. Three fertilisers examined were not correctly labelled in that one failed to give the necessary Statutory Statement, one contained excess of all three essentials, nitrogen, phosphorus and potash, and another contained an excess of nitrogen.

The City Analyst is a member of the Standing Advisory Committee of the Ministry of Agriculture, Fisheries and Food, which deals with fertilisers and feeding stuffs and the regulations dealing therewith.

There is, of course, the danger that when insecticides or pesticides are used in agriculture, there will be some residue left on the edible products when these are put on the market. Raw vegetables and fruits were examined to see that no such traces had been left on them with negative results. It is proposed to obtain apparatus whereby, if any such residues are found, they can be further investigated and classified, and possibly estimated and identified.

WATER SUPPLY

This year has marked a change in the Liverpool water supply in that the Huntington works, abstracting and purifying water from the River Dee, just above Chester, has been in regular operation, although the new reservoir at Tryweryn has not yet come into operation. It is proposed to regulate the level of the River Dee to some extent by the Tryweryn reservoir, the supply to one river being supplemented when the level is too low and restrained when rainfall is likely to cause flooding. At the same time the River Dee acts as an aqueduct, conveying water from the reservoir to the Huntington plant.

The new supply renders the Liverpool water a little harder at times than when derived solely from upland surface reservoirs, but will ensure that our supply is adequate for some years to come. The river water requires much more extensive treatment than the remarkably pure waters which gather in the reservoirs at Vyrnwy and Rivington.

The main sources of the Liverpool supply were analysed regularly throughout the year, and, in addition, many "casual" samples of water were examined to determine their sources, whether well, subsoil, seepage, river, mains leakage, sewage or just for information as to suitability for specific purposes such as concrete making. Many authorities in South East Lancashire sent in samples of water for examination.

RADIO-ACTIVITY

A regular check is kept on the water at the various sources and as supplied through the taps for radio-active contamination. There is always a very slight but measurable radio-activity naturally present in water supplies and it is necessary to determine this on each supply so that any increase can be spotted immediately and the reason for such increase investigated.

ATMOSPHERIC POLLUTION

With regard to the air we breathe, atmospheric pollution is examined in two ways, the solid matter which settles out of the atmosphere or is carried down by rain, and the gaseous or finely divided matter which remains suspended in the atmosphere until it is dissolved or precipitated, again by rain. More attention is now paid to the matter suspended in the atmosphere than to that which falls out, as it is the former which collects on fabrics and all surfaces and is drawn into the lungs on breathing.

At four stations the air is drawn through filter paper to determine the "smoke" in suspension and then through a solution whereby the sulphur and other acid gases are washed out. The amount of smoke is determined by the density of the stain on the filter paper, and the acid

by examination of the solution used for washing the air. These determinations are made daily at four points in the City, and the deposited matter is examined monthly. Details are given in the appendix.

OTHER WORK

The City Analyst also carries out work for other Departments—regular analyses for the City Engineer's Department, of sewages, trade effluents, surface waters, etc., for the Passenger Transport Department of fuels and oils, and work and advice for other Corporation departments as required. Work is carried out also on behalf of Hospital Management Committees when such work is more within the scope of the Corporation laboratories than their own.

It can thus be seen that the work of this Department covers a very wide field, extending much beyond the scope of public health, and the City Analyst is proud to record his appreciation of the conscientious work and loyal support of the Principal Assistant Analyst and the Chemical and Office Staffs throughout the year.

DISINFECTION AND DISINFESTATION

The demand by members of the public for disinfestation increased considerably during the year but requests for disinfection of infectious premises remained at approximately the same level as in the previous two or three years.

The considerable increase in demand for disinfestation was largely due to the decision of the Committee to cease to levy a charge for this service and, as this information became more widely known, the public took more and more advantage of the free service provided. Whereas in previous years tenants of houses have attempted to cope with vermin infestation by any means at their disposal, they have now come to appreciate that the services of experts are available, without incurring any cost to themselves, indeed the demand has increased to such an extent that additional staff and vehicles have become a necessity and provision has been made for this expansion.

The demand for disinfection of premises and articles following the incidence of infectious disease has remained at approximately the same level as in the previous year, but should the occasion arise whereby the demand should show a sudden temporary increase, facilities for immediate expansion could be made available.

INSPECTION OF PREMISES FOR VERMINOUS CONDITION

The intensive re-housing programme which is being carried out under the direction of the Housing Department led to a marked increase in the number of inspections performed by this section during the year. The present system entails an inspection for verminous condition of the premises of every family for whom rehousing is intended. These inspections take place in every case irrespective of the ultimate destination of the family, whether it be within the boundaries of the City or to any other housing estate controlled by the Liverpool Authority. In this connection 13,043 inspections were carried out, an increase of 25 per cent during the year. Dwellinghouses treated number 741 and 551 treatments of furniture and effects were carried out.

DISINFESTATION TREATMENT OF VERMINOUS PREMISES

The decision to allow all members of the public the free use of the disinfestation service has, in the first year, caused a considerable increase (almost 100 per cent) in the calls made upon the section. During the year, 4,448 complaints were received, not all of which merited operational treatment, but large numbers of treatments were carried out as a consequence of these complaints. The majority of the other complaints were resolved by advice given by officers of the department.

Requests for disinfestation treatment are frequently received for establishments under the control of other Corporation departments, commercial undertakings and Hospital Management Committees. The cost of any treatment in these categories is debited to the complainant.

As a consequence of complaints made by the general public, 1,875 dwellinghouses were treated and 537 requests for disinfestation treatment of business premises were received.

Included in the above categories are a number of cases referred by the Welfare Service section in which, in addition to disinfestation treatment, it has been the duty of this section to remove quantities of furniture and other articles which were no longer useful to the owners. Usually in these cases the occupants had been removed to hospital or were physically incapable of keeping their premises in a clean and vermin-free condition.

DISINFESTATION AND DISINFECTION STATIONS

The two stations in use during the year were used for the purpose of steam disinfestation of verminous articles or disinfection of infectious articles which had been collected from the City or Port Health area.

In addition, precautionary disinfection of articles intended for export was carried out, the exporter having to pay for expenses incurred.

During the year the following items were dealt with:—

10,311 Verminous articles disinfested.

13,718 Infectious articles disinfected.

57 Infectious library books disinfected.

17,631 Articles for precautionary treatment.

631 Tons of miscellaneous goods, the outer wrappers of which are treated as a precautionary chargeable measure.

DISINFECTION OF INFECTIOUS PREMISES

It is a primary function of this section to arrange and operate terminal disinfection of premises and articles when infectious disease has occurred. The duties of the staff are to remove for steam disinfection articles which have been in contact with infectious persons and to carry out the prescribed disinfection of premises. In the Port Health area, articles of bedding, etc., are removed from the ship concerned and the necessary disinfection process performed by Port Health staff.

During the year, 1,179 infectious premises were dealt with in this manner.

TRANSPORT AND ANCILLARY SERVICE SECTION

The principal duties with which this section is concerned are the transport service for handicapped persons and the meals on wheels

service. A number of other duties connected with transport and other ancillary services are also of particular importance. These are connected directly or indirectly with other branches of the Health Department or to some degree with other Corporation departments.

Details of the various services provided are as follows:—

TRANSPORT OF THE HANDICAPPED

The completion of the first full year by this service has given an indication of the extent to which it is necessary and enabled the officers of the department to appraise immediate and future needs. From the experience gained, it has become apparent that if all handicapped persons who are in need of special transport are to be catered for at the various centres, the service will need to be expanded far beyond its present capacity.

During this first full year up to 180 persons per day were conveyed to and from training centres by the fifteen vehicles available, an average of twelve persons per vehicle per day. In addition to this, various other duties were maintained including transport to and from “Westdene”, Southport, evening transport on behalf of voluntary organisations, admissions to hostels, holiday and theatre trips and a variety of other smaller duties designed to provide for the handicapped, freedom of movement and access to a social life which had previously been denied to them.

Towards the end of the year plans were made for an urgent expansion of the service during the current financial year and for further expansion during 1965.

The existing service is functioning efficiently despite difficulties experienced in lack of suitable garage accommodation, but if the service is to be extended, provision of additional garage accommodation will be vitally necessary.

MEALS ON WHEELS

This service is closely linked with the transport service for the handicapped, the same vehicles being used for each, supplemented by several vehicles from the general transport service. The need for the provision of a hot meal is assessed by officers of the Welfare Service section.

Meals are supplied on three days of each week and each vehicle is staffed by a driver and helper, the latter being either a volunteer assistant from the Women’s Voluntary Service, or a member of the staff. The service is expanding rapidly and during the year, 144,236 meals were supplied, involving a mileage of 56,185 by the vehicles concerned. This represents a 76 per cent increase over the previous year.

INCONTINENT LAUNDRY SERVICE

This service is becoming more widely known, not only by the medical and nursing profession but by the general public resulting in further demands being made.

The increase in demand is such that further staff and vehicles have become necessary in order to ensure the smooth running of a service which is so essential to those in need of these facilities.

The section is responsible for the collection and return of linen, suitable containers being used for the purpose, and the department is indebted to the active co-operation of the Baths and Public Laundries Department in arranging for the laundering of articles and by this valuable assistance adding to the undoubted efficiency of the service. During the year a total of 20,900 calls were made.

HOME NURSING EQUIPMENT

The need for equipment necessary for the efficient nursing of persons who are ill at home is constantly growing, and when allied with the demands previously mentioned for the incontinent laundry service, provides evidence of the great necessity for the provision of services vital to the elderly or chronically ill.

The administration of this service is performed by the staff of the maternity and child welfare section, but all the practical work, storage, delivery collection and maintenance of equipment is the responsibility of this section. During the year, 11,200 visits were made in issuing or collecting items of equipment.

CITY MORTUARY

The control and staffing of the City Mortuary is the responsibility of this section. Two experienced full-time attendants are employed on a rota of early and late duties and are on call should an emergency arise outside their normal working hours. The mortuary is used for the reception from the City or Port area of bodies of persons who have died as a result of accident, violence, etc. During the year, 560 bodies were received and 521 post mortems held. Close liaison is maintained with the office of the City Coroner for the effective functioning of this service.

MISCELLANEOUS

Included in this section are:—

- (a) The collection and removal of furniture and equipment to and from aged persons hostels.
- (b) Collection, repair and delivery of day nursery equipment, and furniture, and repairs to furniture, etc., at the office building, Hatton Garden.

- (c) Transport of equipment on behalf of the Mental Health Service.
- (d) Various transport duties on behalf of the Children's Department.
- (e) The moveable property of persons admitted to hospital or to accommodation provided under Part III of the National Assistance Act, 1948, is conveyed where necessary, to and from store.
- (f) The residents in aged persons hostels are provided with facilities for obtaining books from public libraries. The transport required for this service is provided by this section.
- (g) The transport of port health personnel continues in a satisfactory manner by means of a vehicle from this section.
- (h) A variety of other transport duties necessary for establishments under the control of the Health Department.
- (i) Maintenance of gardens at day nurseries and clinics.

STAFF

The staff employed both on the transport and ancillary services and the disinfection and disinfestation service are :—

Administrative

1 Chief Inspector.
1 Senior Inspector.
3 Inspectors
1 Depot Assistant.
3 Foremen.
1 Storekeeper.

Operational

2 Shift Leaders.
20 Drivers.
14 Disinfestors etc.
19 Driver/Attendants.
1 Mechanic.
1 Joiner.
2 Boiler Attendants.
2 Mortuary Attendants.

Thirty-three motor vehicles, engaged in the work of this joint section, are maintained within the department. During the year these vehicles covered 398,414 miles and consumed 26,397 gallons of petrol.

CIVIL DEFENCE

AMBULANCE AND FIRST AID

Four training courses were arranged during the year covering all aspects of Civil Defence and three full first aid courses. The average monthly attendance throughout the year was 54. During the year, nine volunteers passed the standard test and elected to serve in class "A".

Combined exercises were held at Garston Old Road and Civil Defence Headquarters and 24 volunteers assisted the Liverpool Regional Hospital Board in the semi-finals of their competition by acting as stretcher bearers.

A visit by thirteen volunteers to the 21st Royal Observer Corps Group Headquarters proved successful and it is hoped to arrange more of these visits in the future so that all volunteers can have an opportunity to attend.

WELFARE SECTION

During the year progress has been maintained both in recruitment of new volunteers and the training of the section as a whole. This has enabled classes to be continued at the Civil Defence Headquarters, Pitville Ladies' Social Club (C.D.), and the W.V.S. Headquarters, and also for plans to be made to open two more training centres in the Spring of 1965, one in Holt House, Ullet Road, and the other at Walton Village.

A great boost has been given to the section by three of the part-time instructors, successfully attending requalifying courses at the Home Office Technical Training Schools of Falfield and Easingwold, and by the addition of one new part-time instructor who qualified after attending a course at Easingwold. This now gives the section the services of five "Centrally" trained, part-time instructors, qualified in both the Dispersal and Care of the Homeless and Emergency Feeding.

As in past years, apart from their own normal duties, the organiser and instructors have, on numerous occasions, assisted the Regional Headquarters of Civil Defence, by setting and conducting both Standard and Advanced Training examinations, in various parts of the region.

On Sunday, 3rd May, Civil Defence exercise "MAJOR" was held. This included the Armed Forces, Industrial Civil Defence and the Regional Hospital Board. The Welfare Section were requested to provide mid-morning and mid-afternoon refreshments along with a cold meat luncheon for the 600 volunteers taking part. Garston Old Road training ground was selected as the production and distribution centre.

The main problem, however, facing the Welfare Section, was the distribution of meals to six widely separated operational areas, without disrupting the continuity of the exercise. To achieve this, it was decided to invite the Ministry of Agriculture, Fisheries and Food to send four of their Food Flying Squad Vehicles from the Cheshire contingent. These vehicles, with their drop-sides and serving counters, proved to be ideal mobile meal centres from which distribution was hygienically and speedily made.

A demonstration of the operational role of the Welfare Section was shown to other sections of the Liverpool Corps and representatives from Regional Civil Defence Headquarters, at Civil Defence Headquarters, on Tuesday evening, 9th March. A great deal of credit for the very successful presentation was due to the skill of the part-time instructors, who produced their own playlets around a theme written by the organiser.

The aim in 1965 is to establish firmly the new training centres at Holt House and Walton Village, with an anticipated large increase in the numbers of volunteers.

SHELTER WELFARE

There has not been any special training undertaken during the year as the numbers did not warrant it.

GENERAL

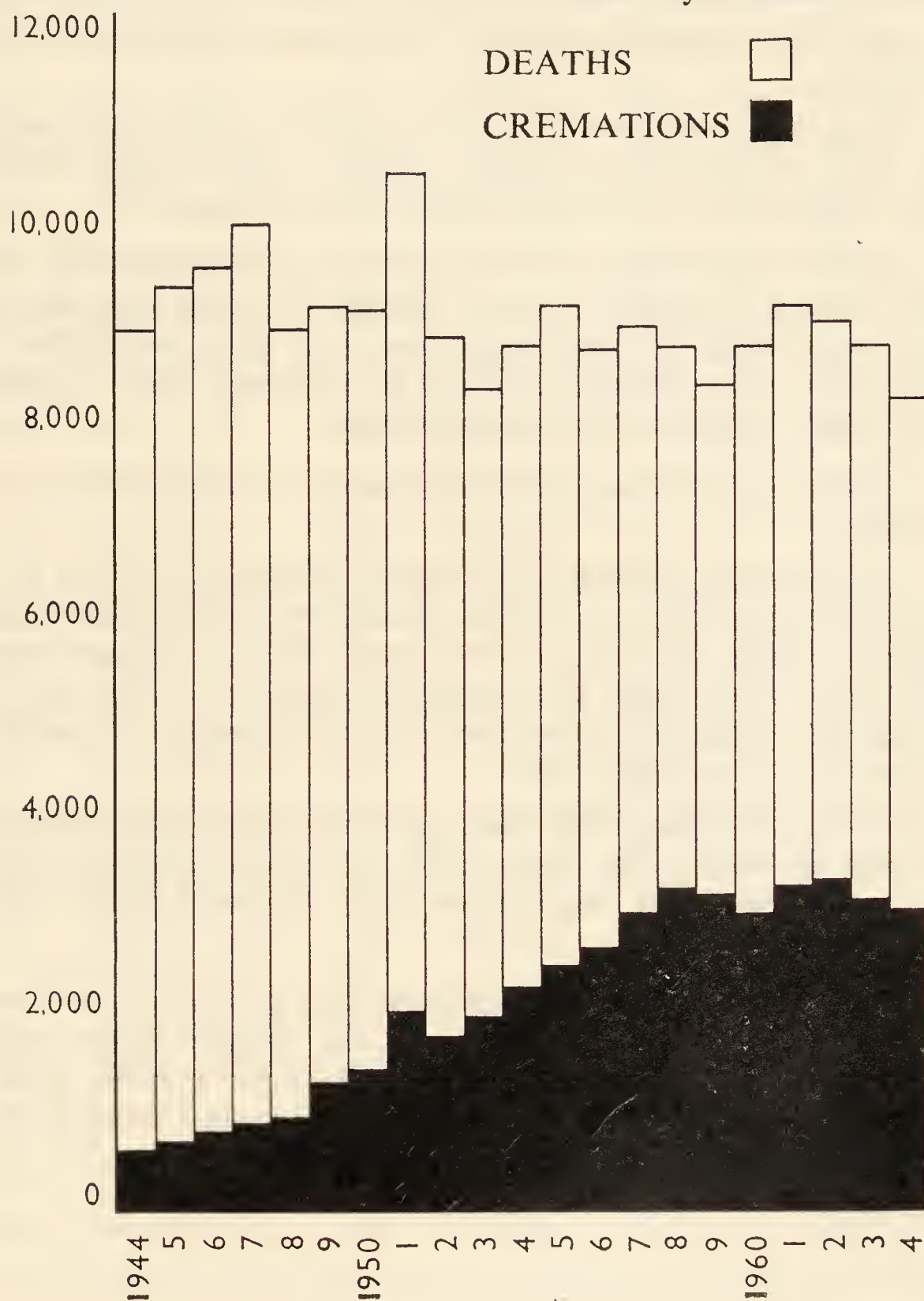
During the year several Civil Defence circulars were issued by the Home Office Civil Defence Department dealing mainly with training and administrative matters. There were also several Headquarters meetings for permanent senior departmental officers dealing with civil defence organisation. Officers in various departmental premises reported when required as to the audibility of the civil defence warning system during the year.

CREMATION

The Medical Officer of Health continued to act as medical referee to the Liverpool Crematorium. The Deputy Medical Officer of Health and the Principal Medical Officer (Mental Health) and Principal Medical Officer (Epidemiology) acted as deputy medical referees. The documents, which are statutory, are scrutinised at the central offices of the Liverpool Health Department before authority is given to cremate.

The number of cremations carried out during the year at the Liverpool Crematorium was 3,110 which is a decrease over the number undertaken during 1963. The slight fall in the figures this year and, of course, last year also, does not indicate a decline in the popularity of cremation, but is a reflection of the fact that two new crematoria were opened in adjacent areas during 1962 and one in Thornton in 1963.

No undue difficulties arose during the year in respect of sudden deaths occurring abroad where cremation was later carried out. Written formal requests for cremation to take place on death were received, as in former years, from several members of the public and these are filed for future reference in order that their wishes may be met.



WATER SUPPLY

(a) The water supply in the area during 1964 was satisfactory both in quality and quantity.

(b) During the year bacteriological examinations were made on 3,706 samples of water from the aqueducts, wells, storage reservoirs, trunk mains and the distribution system. Of the 3,706 samples, 589 were taken within the City from the two wells and from sampling points on the mains other than the trunk mains. Of the 589, 97·6 per cent were free from B.Coli and 68·1 per cent were free from coliform organisms.

Also, of the 3,706 samples, 1,761 were taken from the trunk mains which serve the City and other parts of the area of supply. Of the 1,761, 92·3 per cent were free from B.Coli and 58·1 per cent were free from coliform organisms.

Also, 81 chemical analyses were made and the results were satisfactory.

Eight samples of water from the aqueducts, wells and distribution system were examined for fluoride content. The average amount of fluoride, expressed as F, in these samples was 0·10 p.p.m.

(c) For plumbo-solvency 228 analyses were made. The average amount of lead absorbed in those samples of water that had passed through test lengths of lead piping was 0·06 part per million. The supplies from both Rivington and Lake Vyrnwy were treated with hydrated lime in order to raise the pH value.

(d) Unusual contamination deserving to be recorded here occurred as follows:—

(i) Following flooding of the Brinscall sewage disposal works of the Withnell U.D.C. on the 12th December, 1964, by heavy rainfall, diluted effluent from the works passed from a flooded lodge into the Goit which feeds the Anglezarke reservoir. The level of the lodge was consequently lowered and the discharge of compensation water into it was shut-off.

(ii) At Christmas, 1964, there appeared to be an unusually heavy source of taste in the River Dee: it was dealt with as effectively as was possible by the Corporation's activated carbon plant at Huntington.

(e) The number of dwellinghouses, flats and shops with domestic living accommodation supplied from the public water mains in Liverpool was 206,768. None was supplied by a stand pipe. The population of the City as estimated by the Registrar General for 30th June, 1964, was 729,140.

STATISTICAL SECTION

VITAL STATISTICS

BIRTH STATISTICS—1942-1964

1964	LIVE BIRTHS			STILLBIRTHS		
	Males	Females	Total	Males	Females	Total
Legitimate ...	7,394	7,032	14,426	142	116	258
Illegitimate ...	638	561	1,199	17	8	25
	8,032	7,593	15,625	159	124	283

Year	Births	Birth Rate	Registered Stillbirths	Total Births	Stillbirths per 1,000 Live and Stillbirths	Illegitimate Births	% of Births
1942	13,729	20·5	552	14,281	38·6	871	6·3
1943	14,432	21·8	485	14,917	32·5	1,030	7·1
1944	15,412	23·1	492	15,904	30·9	1,274	8·3
1945	14,784	21·7	431	15,215	28·3	1,582	10·7
1946	18,528	25·2	539	19,067	28·3	1,351	7·3
1947	19,904	26·4	514	20,418	25·2	1,151	5·8
1948	17,695	22·3	479	18,174	26·3	1,009	5·7
1949	16,551	20·7	358	16,909	21·2	943	5·7
1950	16,110	20·1	375	16,485	22·7	968	6·0
1951	15,593	19·9	396	15,989	24·8	859	5·5
1952	15,839	20·0	400	16,239	24·6	876	5·5
1953	16,022	20·3	394	16,416	24·0	873	5·4
1954	15,742	20·5	400	16,142	24·8	847	5·4
1955	15,268	19·6	408	15,676	26·0	785	5·1
1956	15,944	20·6	394	16,338	24·1	801	5·0
1957	16,044	20·9	409	16,453	24·9	854	5·3
1958	15,662	20·5	413	16,075	25·7	799	5·1
1959	15,615	20·6	375	15,990	23·4	815	5·2
1960	15,961	21·1	377	16,338	23·1	868	5·4
1961	16,492	22·1	380	16,872	22·5	946	5·7
1962	16,479	22·1	333	16,812	19·8	1,020	6·2
1963	15,775	21·3	351	16,126	21·8	1,095	6·9
1964	15,625	21·4	283	15,908	17·8	1,199	7·7

DEATHS FROM
PRINCIPAL CAUSES—1964

Cause								Rate per 1,000 Population	Percentage of Total Deaths
Heart Diseases	...	...	...	...	...	...	...	3·4	30·5
Other Circulatory Diseases	...	...	...	...	...	...	...	0·4	3·8
Bronchitis	...	...	...	...	...	...	...	0·7	6·5
Acute and Bronchopneumonia	...	...	...	...	...	...	...	1·1	9·5
Digestive Diseases	...	...	...	...	...	...	...	0·2	2·1
Malformations and Diseases of Early Infancy	...	...	...	...	...	...	...	0·3	3·1
Violence	...	...	...	...	...	...	...	0·5	4·6
Cancer Respiratory System	...	...	...	...	...	...	...	0·7	6·5
Cancer all other sites	...	...	...	...	...	...	...	1·6	14·7
Vascular Lesions of Central Nervous System	...	...	...	...	...	...	...	1·4	12·0
All other causes	...	...	...	...	...	...	...	0·8	6·7
Death rate for the City 11·2 per 1,000									

DEATHS FROM CANCER—1964

Organs Affected						Number of deaths
Buc. cavity and pharynx	...	...	...	...	...	26
Oesophagus, stomach, intestines and rectum	...	...	...	...	...	483
Larynx, trachea, bronchus and lungs	...	...	...	...	...	527
Cervix and uterus	...	...	...	...	...	56
Breast	...	...	...	...	...	121
All other sites	...	...	...	...	...	423
Leukaemia and aleukaemia	...	...	...	...	...	36
Lymphosarcoma	...	...	...	...	...	48
Total	...	...	...	...	...	1,720

TRENDS OF MORTALITY
1945-64

	<i>Deaths from Cancer of the Respiratory System</i>	<i>Deaths from Tuberculosis of the Respiratory System</i>
1945	160	605
1946	234	579
1947	235	599
1948	252	630
1949	320	532
1950	331	481
1951	334	406
1952	346	269
1953	432	258
1954	383	232
1955	408	185
1956	448	137
1957	448	123
1958	399	109
1959	444	102
1960	457	81
1961	525	80
1962	484	74
1963	483	54
1964	527	38

MATERNAL MORTALITY—1930-1964

Year.			BIRTHS REGISTERED			MATERNAL MORTALITY	
			Live Births	Stillbirths	Total Births	Deaths	Rate per 1,000 Total Births
1930	...	...	18,881	774	19,655	75	3.81
1931	...	...	18,626	722	19,348	55	2.84
1932	...	...	18,149	827	18,976	51	2.69
1933	...	...	16,929	680	17,609	60	3.41
1934	...	...	17,593	685	18,278	51	2.79
1935	...	...	17,347	749	18,096	59	3.26
1936	...	...	17,403	708	18,111	64	3.52
1937	...	...	16,728	618	17,346	40	2.31
1938	...	...	16,175	639	16,814	33	1.96
1939	...	...	15,614	631	16,245	29	1.86
1940	...	...	15,016	519	15,535	31	2.01
1941	...	...	13,291	508	13,799	32	2.42
1942	...	...	13,729	552	14,281	34	2.38
1943	...	...	14,432	485	14,917	34	2.27
1944	...	...	15,412	492	15,904	31	1.95
1945	...	...	14,784	431	15,215	23	1.51
1946	...	...	18,528	539	19,067	19	0.99
1947	...	...	19,904	514	20,418	17	0.83
1948	...	...	17,695	479	18,174	14	0.77
1949	...	...	16,551	358	16,909	9	0.53
1950	...	...	16,110	375	16,485	7	0.42
1951	...	...	15,593	396	15,989	10	0.62
1952	...	...	15,839	400	16,239	7	0.43
1953	...	...	16,022	394	16,416	5	0.30
1954	...	...	15,742	400	16,142	8	0.49
1955	...	...	15,268	408	15,676	9	0.57
1956	...	...	15,944	394	16,338	7	0.43
1957	...	...	16,044	409	16,453	7	0.42
1958	...	...	15,662	413	16,075	4	0.25
1959	...	...	15,615	375	15,990	5	0.31
1960	...	...	15,961	377	16,338	5	0.31
1961	...	...	16,492	380	16,872	2	0.12
1962	...	...	16,479	333	16,812	5	0.30
1963	...	...	15,775	351	16,126	4	0.25
1964	...	...	15,625	283	15,908	3	0.19

INFANT MORTALITY—1964

Net Deaths from stated Causes at various ages under one year

Cause of Death	Under 1 week	8-27 days	1-6 months	7-12 months	Total Deaths under 1 year
Meningococcal Infections	—	1	1	—	2
Measles	—	—	1	—	1
Pneumonia	—	—	32	13	45
Bronchitis	—	—	16	5	21
Enteritis	—	—	12	3	15
Malformation	37	5	25	11	78
Injury at Birth	18	1	—	—	19
Infections of Newborn ...	14	10	3	—	27
Other Diseases of Early Infancy	110	4	—	—	114
Other Causes	2	—	13	2	17
Totals	181	21	103	34	339

Net Births in the year	... Legitimate	14,426
	... Illegitimate	1,199
Net Deaths in the year	... Legitimate Infants	316
	... Illegitimate Infants	23

CAUSES OF DEATH—1964

						SEX	
						Males	Females
ALL CAUSES	...	...	...	...	...	4,136	3,995
Class	I.—Infectious and Parasitic Diseases	...	...	...	...	45	18
„	II.—Neoplasms ... ..	...	...	...	...	991	747
„	III.—Allergic, Metabolic Diseases, etc.	...	...	...	...	19	57
„	IV.—Diseases of the Blood ... ..	...	...	...	...	12	29
„	V.—Mental and Psychoneurotic Diseases	...	...	...	...	22	2
„	VI.—Diseases of Nervous System	...	...	...	...	444	591
„	VII.—Diseases of Circulatory System	...	...	...	...	1,365	1,416
„	VIII.—Diseases of Respiratory System	...	...	...	...	723	645
„	IX.—Diseases of Digestive System	...	...	...	...	78	93
„	X.—Diseases of Genito-urinary System	...	...	...	...	58	63
„	XI.—Diseases of Pregnancy	...	...	...	...	—	3
„	XII.—Diseases of Skin ... ..	...	...	...	...	5	5
„	XIII.—Diseases of Bones	...	...	...	...	5	13
„	XIV.—Congenital Malformations	...	...	...	...	49	42
„	XV.—Diseases of Early Infancy	...	...	...	...	97	63
„	XVI.—Senility and ill-defined Diseases	...	...	...	...	14	38
„	XVII.—Deaths from Violence	...	...	...	...	209	170

ANALYSIS OF CAUSES OF INFANT MORTALITY IN SUCCESSIVE QUINQUENNIA 1896-1960,
AND THE YEARS 1961, 1962, 1963 AND 1964

(A.)—Recorded Deaths

Years	1 Total Births	2 Total Deaths Under 1 Year of Age	3 General Diseases (excluding Tubercu- losis)	4 Tubercular Diseases	5 Nervous Diseases	6 Respira- tory Diseases	7 Digestive Diseases (including Diarrhoea)	8 Malforma- tions Premature Birth, Maras- mus &c.	9 External Causes
1896/1900	111,700	21,160	1,508	698	2,476	3,575	6,376	5,698	819
1901/1905	118,801	20,353	1,546	644	2,516	3,484	5,187	5,732	565
1906/1910	118,313	17,739	1,613	465	2,052	3,146	3,902	5,520	539
1911/1915	111,872	15,458	1,309	345	1,432	2,916	3,635	4,953	426
1916/1920	99,451	11,510	1,116	202	1,083	2,821	1,872	4,107	179
1921/1925	104,217	10,497	1,066	200	573	2,776	1,786	3,764	120
1926/1930	95,701	9,002	978	109	401	2,553	1,670	2,981	81
1931/1935	88,644	7,904	902	82	368	2,050	1,184	3,125	67
1936/1940	80,936	6,226	573	74	519	1,457	698	2,691	84
1941/1945	71,648	5,512	341	71	403	1,704	548	2,193	131
1946/1950	88,788	5,034	311	47	213	1,109	963	2,226	111
1951/1955	78,464	2,626	83	10	28	480	132	1,792	63
1956/1960	79,226	2,149	31	—	24	384	82	1,576	30
1961	16,492	467	4	1	5	78	23	344	8
1962	16,479	461	2	—	4	94	19	321	16
1963	15,775	412	9	1	2	87	17	285	8
1964	15,625	339	3	—	1	66	18	238	10

(B.)—Death Rates per 1,000 Births

Years	1 Births*	2 Total Deaths Under 1 Year of Age	3 General Diseases (excluding Tubercu- losis)	4 Tubercular Diseases	5 Nervous Diseases	6 Respira- tory Diseases	7 Digestive Diseases (including Diarrhoea)	8 Malforma- tions Premature Birth, Maras- mus &c.	9 External Causes
1896/1900	*33.4	189	12.7	6.2	22.1	32.0	57.1	51.0	7.3
1901/1905	33.4	172	13.0	5.5	21.2	29.3	43.7	48.1	4.7
1906/1910	32.2	149	13.6	3.9	17.4	26.6	33.0	46.7	4.6
1911/1915	29.3	137	11.6	3.1	12.8	26.1	32.5	43.1	3.8
1916/1920	24.9	116	11.1	2.0	10.9	28.4	18.8	42.0	1.8
1921/1925	25.1	100	10.2	1.9	5.5	26.6	17.1	36.1	1.2
1926/1930	22.1	94	10.2	1.1	4.2	26.7	17.4	31.1	0.8
1931/1935	20.5	89	10.1	0.9	4.2	23.1	13.4	35.3	0.8
1936/1940	19.4	77	7.0	0.9	6.4	17.9	8.8	32.9	1.0
1941/1945	21.3	78	4.8	1.0	5.6	24.1	7.7	30.7	1.8
1946/1950	22.9	56	3.4	0.5	2.3	12.3	10.5	25.1	1.2
1951/1955	20.1	33	1.0	0.1	0.3	6.1	1.7	22.8	0.8
1956/1960	20.7	27	0.4	—	0.3	4.9	1.1	19.9	0.4
1961	22.1	28	0.2	0.06	0.3	4.7	1.4	20.9	0.5
1962	22.1	28	0.1	—	0.2	5.7	1.2	19.5	1.0
1963	21.3	26	0.6	0.06	0.1	5.5	1.1	18.1	0.5
1964	21.4	22	0.2	—	0.1	4.2	1.1	15.2	0.6

*In column 1 the rates indicate the number of births per 1,000 of the population.

POPULATION, BIRTH RATES, DEATH RATES, INFANT AND MATERNAL MORTALITY

Name of Authority							Birmingham	Bradford	Bristol
Registrar-General's estimated population for 1964							1,106,040	298,220	432,070
Comparability factor—									
(a) Births							0.99	1.04	1.03
(b) Deaths							1.17	1.03	0.97
Crude birth rate per 1,000 population							20.24	19.49	17.4
Birth rate as adjusted by factor... ..							20.04	20.27	17.9
Crude death rate per 1,000 population							10.68	12.99	11.9
Death rate as adjusted by factor							12.50	13.38	11.5
Infant mortality rate per 1,000 live births							21.44	27.01	18.4
Neonatal mortality rate per 1,000 live births							14.47	15.14	11.8
Stillbirth rate per 1,000 total births							17.47	17.91	12.2
Perinatal mortality rate per 1,000 total births							29.85	31.26	22.5
Maternal mortality rate per 1,000 total births							0.381	0.34	0.13
Tuberculosis rates per 1,000 population									
(a) Primary notifications—									
Respiratory							0.57	0.85	0.34
Non-respiratory... ..							0.10	0.23	0.05
(b) Deaths—Respiratory							0.06	0.08	0.03
Non-respiratory... ..							0.003	0.01	0.01
Death Rates per 1,000 population from—									
Cancer (all forms including Leukaemia and Aleukaemia) ...							2.08	2.30	2.30
Cancer of Lungs and Bronchus							0.53	0.51	0.55
Meningococcal infections							0.00	0.00	0.00
Whooping Cough							0.00	0.00	0.00
Influenza							0.025	0.006	0.02
Measles							0.002	0.00	0.00
Acute Poliomyelitis and Encephalitis							0.00	0.00	0.00
Diarrhoea (under 2 years)							0.84	0.01	0.01
Diarrhoea (under 2 years) (per 1,000 live births)							1.52	0.52	0.40

RATES, ETC., OF A NUMBER OF THE LARGER AUTHORITIES FOR 1964

Cardiff	Kingston-upon-Hull	Leeds	Leicester	Liverpool	Manchester	Nottingham	Sheffield
260,340	300,320	508,790	267,050	729,140	644,500	311,850	490,930
0.99	0.97	1.00	1.07	0.94	1.00	0.99	1.01
1.14	1.23	1.14	0.99	1.22	1.18	1.12	1.05
19.5	19.97	18.84	19.05	21.4	20.61	19.95	17.11
19.3	19.37	18.84	20.38	20.1	20.61	19.75	17.28
10.76	10.54	11.46	12.50	11.2	11.97	11.56	12.25
12.26	12.96	13.06	12.375	13.6	14.12	12.95	12.86
21.67	21.51	24.7	22.8	21.7	28.76	23.15	17.50
16.15	13.34	15.5	16.12	13.1	18.37	15.75	12.62
17.42	16.88	17.2	18.71	17.8	20.07	20.31	15.82
30.20	28.52	31.3	32.21	28.7	35.34	33.86	26.01
0.19	0.00	0.21	0.58	0.189	0.52	0.16	0.12
0.39	0.36	0.44	0.37	0.37	0.49	0.503	0.44
0.05	0.03	0.04	0.135	0.04	0.06	0.067	0.06
0.04	0.047	0.06	0.79	0.052	0.08	0.051	0.08
0.004	0.01	0.004	0.0075	0.004	0.01	0.006	0.00
2.03	2.17	2.30	2.27	2.4	2.42	2.325	2.43
0.47	0.61	0.63	0.52	0.7	0.71	0.644	0.64
0.00	0.00	0.00	0.0037	0.004	0.00	0.003	0.00
0.004	0.00	0.002	0.00	0.00	0.00	0.00	0.00
0.02	0.02	0.009	0.037	0.011	0.02	0.061	0.03
0.00	0.00	0.004	0.0037	0.001	0.00	0.010	0.01
0.00	0.003	0.00	0.00	0.00	0.00	0.00	0.00
0.008	0.01	0.03	0.0037	0.021	0.03	0.006	0.02
0.40	0.50	1.56	0.20	0.96	1.36	0.321	1.07

ANALYSIS OF CAUSES OF MORTALITY

Deaths from certain Groups of Diseases in each decade from 1871 to 1960, and during the years 1961, 1962, 1963 and 1964

Years	(a) Infective diseases (less Diarrhoea and Influenza)	(b) Tubercular diseases	(c) Respiratory diseases (including Influenza)	(d) Digestive diseases (including Diarrhoea)	Total Deaths from (a), (b), (c) & (d)	(e) Cancer	Total Deaths from all causes
1871-1880	27,205 (19.2)	19,869 (13.5)	29,763 (20.2)	14,747 (10.0)	91,584 (62.9)	2,015 (1.4)	147,005
1881-1890	19,748 (14.1)	17,870 (12.7)	32,507 (23.2)	13,186 (9.4)	86,311 (59.4)	2,820 (2.0)	146,195
1891-1900	13,515 (9.3)	16,714 (10.8)	35,819 (24.6)	18,491 (12.7)	84,539 (57.4)	4,223 (2.9)	145,522
1901-1910	13,967 (8.6)	16,054 (10.6)	32,995 (21.8)	18,163 (12.0)	81,179 (53.0)	6,480 (4.3)	150,962
1911-1920	10,417 (7.9)	14,946 (10.9)	36,480 (27.3)	12,282 (8.9)	74,125 (55.0)	7,603 (5.5)	137,323
1921-1930	7,831 (6.6)	12,664 (10.7)	29,447 (25.0)	8,184 (6.9)	58,126 (49.4)	9,852 (8.4)	117,756
1931-1940	6,473 (5.6)	9,413 (8.1)	18,196 (15.7)	5,987 (5.2)	40,069 (34.7)	12,619 (10.9)	115,632
1941-1950	2,645 (2.6)	6,987 (7.1)	15,728 (15.9)	4,328 (4.4)	29,723 (30.1)	13,265 (13.7)	98,347
1951-1960	621 (0.7)	2,063 (2.2)	15,315 (16.8)	2,570 (2.8)	20,569 (22.5)	15,986 (17.7)	90,642
1961.....	25 (0.3)	86 (0.9)	1,888 (20.4)	229 (2.5)	2,228 (24.1)	1,708 (18.4)	9,262
1962.....	29 (0.3)	81 (0.9)	1,774 (19.4)	205 (2.2)	2,089 (22.8)	1,719 (18.8)	9,162
1963.....	31 (0.3)	58 (0.7)	1,641 (18.4)	224 (2.5)	1,954 (21.9)	1,573 (17.7)	8,908
1964.....	22 (0.3)	41 (0.5)	1,368 (16.7)	171 (2.1)	1,602 (19.6)	1,720 (20.9)	8,191

Figures in parenthesis indicate the percentage of total deaths from all causes (Proportionate Mortality).

MATERNITY AND CHILD WELFARE

PUERPERAL PYREXIAS—1964

Occurring in Hospital	292
Occurring at Home	10
	<hr/> 302 <hr/>
Uterine infection	83
Urinary infection	72
Respiratory infection	36
Post operative Caesarian Section ...	13
Throat infection	10
Influenza	3
Mastitis	2
Reaction to blood transfusion ...	2
Pyrexia of unknown origin ...	73
Others	8

MIDWIFERY—HOME CONDITIONS—1964

Hospital Requests	Booked for Home Confinement	No Contact	Returned to Hospital. Not suitable
1,048	329	75	644

Hospital Requests	Suitable for Early Discharge	No contact	Not suitable for Early Discharge
1,946	1,496	64	386

TOTAL REQUESTS 2,994

WEIGHTS OF PREMATURE BABIES

CARED FOR BY PREMATURE BABY MIDWIVES—1964

	Babies born at home and cared for by the Premature Baby Team	Babies born at home and transferred to hospital	Babies born in hospital and discharged to the care of the Premature Baby Team
Less than 3 lb. 4 ozs.	—	2	—
3 lb. 5 ozs. to 4 lb. 6 ozs.	5	2	1
4 lb. 7 ozs. to 4 lb. 15 ozs.	11	2	82
5 lb. 0 ozs. to 5 lb. 8 ozs.	25	3	450
5 lb. 9 ozs. and over	4	—	155
Totals	45	9	688
Sets of twins.	—	—	37
Sets of triplets	—	—	2
One baby of twins	—	—	3

PATIENTS TRANSFERRED TO HOSPITAL—1964

Mothers

Malpresentations	...	...	154
Postmaturity	...	...	114
Pre-eclamptic toxæmia	...	...	93
Ante partum hæmorrhage	...	...	84
Prolonged labour	...	...	76
Anaemia	...	...	68
Premature rupture of membranes	...	...	63
Domestic reasons	...	...	60
Multiple pregnancy	...	...	39
Premature labour	...	...	38
Bad obstetric history	...	...	35
Multiparity	...	...	35
Rhesus incompatibility	...	...	32
Disproportion	...	...	31
Abortions	...	...	27
Post partum hæmorrhage	...	...	24
Foetal distress	...	...	21
Retained products	...	...	14
Hydramnios	...	...	11
Intra-uterine death	...	...	11
Retained placenta	...	...	10
Glycosuria	...	...	9
Placenta prævia	...	...	7
Perineal repair	...	...	6
Urinary infection	...	...	5
Thrombophlebitis	...	...	4
Uterine infection	...	...	3
Congenital abnormality	...	...	3
Pyrexia	...	...	3
Epileptic fits	...	...	3
Cardiac complications	...	...	2
Chest infection	...	...	2
Slipped disc	...	...	2
Uterine fibroids	...	...	2
Pneumonia	...	...	2
Others	...	...	19

MOTHERS 1,112

BABIES 77

Babies

Premature infants	...	...	...	25
Congenital abnormality	...	...	...	7
Jaundice	...	...	...	6
Cyanosis	...	...	...	5
Grunting respirations	...	...	...	5
Asphyxia pallida	...	...	...	4
Hypothermia	...	...	...	3
Respiratory infection	...	...	...	3
Atelectasis	...	...	...	2
Feeding difficulties	...	...	...	2
Vomiting	...	...	...	2
Ophthalmia neonatorum	...	...	...	2
Melaena	...	...	...	2
Bleeding from cord	...	...	...	2
Meningitis	...	...	...	2
Cerebral irritation	...	...	...	1
Gastro-enteritis	...	...	...	1
Stillbirth	...	...	...	1
Pemphigus	...	...	...	1
Acute virus infection	...	...	...	1

TOTAL 1,189

1964—REASONS FOR MIDWIVES
CALLING IN MEDICAL AID

<i>Mothers</i>				<i>Babies</i>			
Ruptured perineum	...	...	233	Discharge from eyes	...	...	84
Prolonged labour	...	...	88	Asphyxia	...	...	26
Foetal distress	...	...	49	Skin infection	...	...	20
Post partum haemorrhage	...	...	48	Snuffles	...	...	23
Premature rupture of membranes	...	...	37	Cyanosis	...	...	17
Malpresentations	...	...	36	Monilia	...	...	12
Premature labour	...	...	34	Jaundice	...	...	11
Ante partum haemorrhage	...	...	28	Vomiting	...	...	10
Retained placenta	...	...	26	Cough	...	...	9
Urinary infection	...	...	24	Relaxed stools	...	...	9
Pyrexia	...	...	24	Prematurity	...	...	8
Pre eclamptic toxæmia	...	...	22	Stillbirths	...	...	8
Thrombosis and varicositis	...	...	15	Enteritis	...	...	6
Anaemia	...	...	14	Congenital abnormalities	...	...	6
Uterine infection	...	...	14	Blood stained vomit	...	...	5
Mastitis	...	...	10	Hypothermia	...	...	5
Postmaturity	...	...	8	B.B.A....	...	...	4
Suppression of lactation	...	...	8	Oedema	...	...	3
Abortions	...	...	7	Lethargic	...	...	3
Multiple pregnancy	...	...	5	Bleeding from cord	...	...	2
Oedema	...	...	5	Bruising of face	...	...	2
Intra-uterine death	...	...	4	Cord snapped	...	...	1
Disproportion	...	...	2	Loss of weight	...	...	1
Multiparity	...	...	2	Cerebral irritation	...	...	1
Cord prolapse	...	...	2	Not passed urine	...	...	1
Hydramnios	...	...	2	Naevus	...	...	1
Others	...	...	15				

Mothers 762
Doctor booked 943

Babies 278
Doctor not booked 97

Total 1,040
Total 1,040

HOSPITAL DISCHARGES—1964

Hospital	Days	2	3	4	5	6	7	8	9	10	Total	Premature Births	Total
Broadgreen Hospital	...	28	60	32	10	22	7	9	4	4	176	75	251
Sefton General Hospital	...	41	85	77	60	94	392	167	21	24	961	232	1,193
Mill Road Hospital	...	53	166	88	53	58	288	99	4	3	812	259	1,071
Walton Hospital	...	44	103	39	26	79	197	35	1	3	527	89	616
Liverpool Maternity Hospital	...	25	63	67	124	256	408	277	40	8	1,268	38	1,306
Others	...	—	3	1	—	9	16	8	1	—	38	7	45
Total	...	191	480	304	273	518	1,308	595	71	42	3,782	700	4,482

EPIDEMIOLOGY

FOOD POISONING—1964

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Food Poisoning Notifications (Corrected)					
As returned to Registrar-General ...	3	2	11	15	31
Cases Otherwise Ascertained	3	2	20	12	37
Fatal Cases... ..	—	—	—	—	—

Symptomless Excretors 9

Particulars of Outbreaks

	No. of Outbreaks		No. of Cases		Total No. of Cases
	Family Outbreaks	Other Outbreaks	Notified	Otherwise Ascertained	
Agent identified					
(a) Salmonella typhimurium	1	—	—	2	2
(b) Salmonella virchow	1	—	—	2	2
Total	2	—	—	4	4

Single cases

	No. of Cases		Total No. of Cases
	Notified	Otherwise Ascertained	
Agent identified	31	33	64
Agent not identified	—	—	—

AGENTS

Staph. pyogenes 5

TYPE

Sal. anatum	...	...	2	Sal. singapore	...	...	2
Sal. brandenberg	...	...	1	Sal. tennessee	...	...	1
Sal. enteritides	...	...	2	Sal. thompson	...	...	1
Sal. glostrop	...	...	1	Sal. typhimurium	...	...	44
Sal. muenchen	...	...	1	Sal. virchow	...	...	4

IMMUNISATION AND VACCINATION

PRIMARY DIPHTHERIA IMMUNISATIONS—1955-1964

Where immunised		1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Maternity and Child Welfare Clinics	... ..	3,974	4,547	4,479	6,861	5,789	13,091	5,479	5,016	5,263	5,710
Schools	... ..	2,943	2,070	3,008	2,316	3,245	3,926	1,332	1,464	1,362	2,732
General Practitioners	...	3,212	3,702	3,713	5,761	5,102	8,929	6,375	3,523	3,399	3,397
TOTAL		10,129	10,319	11,200	14,938	14,136	25,946	13,186	10,003	10,024	11,839

DIPHTHERIA IMMUNISATION—1964

	Where Immunised	0—4 Years	5—14 Years	Total
Primary Course	Maternity and Child Welfare Clinics ...	5,605	105	5,710
	General Practitioners	3,304	93	3,397
	Schools	39	2,693	2,732
	Total	8,948	2,891	11,839
Booster Doses	Maternity and Child Welfare Clinics ...	197	369	566
	General Practitioners	393	609	1,002
	Schools	18	5,604	5,622
	Total	608	6,582	7,190

WHOOPING COUGH IMMUNISATION—1964

	Where Immunised	0—4 Years	5—14 Years	Total
Primary Course	Maternity and Child Welfare	5,502	55	5,557
	General Practitioners ...	3,289	91	3,380
	Total	8,791	146	8,937
Booster Doses	Maternity and Child Welfare	163	149	312
	General Practitioners ...	388	564	952
	Total	551	713	1,264

TETANUS IMMUNISATION—1964

	Where Immunised	0—4 Years	5—14 Years	Total
Primary Course	Maternity and Child ... Welfare	5,597	132	5,729
	General Practitioners ...	3,297	103	3,400
	Schools	39	2,647	2,686
	Total	8,933	2,882	11,815
Booster Doses	Maternity and Child ... Welfare	197	327	524
	General Practitioners ...	394	598	992
	Schools	17	5,473	5,490
	Total	608	6,398	7,006

SMALLPOX VACCINATIONS—1961-1964

	1961	1962	1963	1964
BIRTHS	16,492	16,479	15,775	15,625
Total Primary Vaccinations ...	6,554	15,224	1,454	3,722
Total Re-vaccinations	254	3,692	341	349
	6,808	18,916	1,795	4,071
Total Vaccinated at Clinics ...	3,720	7,535	648	1,962
Total Vaccinated by General Practitioners	3,088	11,381	1,147	2,109
TOTAL	6,808	18,916	1,795	4,071

POLIOMYELITIS IMMUNISATION—1964
Doses of Sabin Vaccine

	Where Immunised	Date of Birth						Others	Total
		1964	1963	1962	1961	1943-60	1933-42		
Primary Course (3 Oral Doses)	Maternity and Child Welfare Clinics	2,049	3,794	1,531	821	538	67	47	8,847
	General Practitioners	613	1,568	583	210	191	109	86	3,360
	Total	2,662	5,362	2,114	1,031	729	176	133	12,207
Third Booster Dose	Maternity and Child Welfare Clinics	AGE GROUPS NOT TAKEN							8
	General Practitioners	AGE GROUPS NOT TAKEN							13
	Total								21
Fourth Booster Dose	Maternity and Child Welfare Clinics	AGE GROUPS NOT TAKEN							5,948
	General Practitioners	AGE GROUPS NOT TAKEN							942
	Total								6,890

VACCINATIONS FOR
INTERNATIONAL TRAVEL—1964

Month	Yellow Fever	Smallpox— Number of persons vaccinated	T.A.B.— Number of full courses	Cholera— Number of full courses	Total
January ...	337	239	40	159	775
February ...	282	219	62	156	719
March ...	368	210	31	123	732
April ...	279	295	26	157	757
May ...	266	277	129	158	830
June ...	267	289	215	129	900
July ...	547	270	276	142	1,235
August ...	312	247	139	164	862
September ...	284	252	101	221	858
October ...	266	187	83	197	733
November ...	246	173	37	117	573
December ...	334	179	35	132	680
Totals ...	3,788	2,837	1,174	1,855	9,654

Name of Source	Size of Source	Type of Emission			
		Neutron	Alpha	Beta	Gamma
Thallium 204	24 mc.			x	
Iridium 192	500 mc.			x	
Thulium 170	300 mc.				x
Thallium 204	20 mc.			x	
Strontium 90	55 mc.			x	
Thallium 204	30 mc.			x	
Caesium 137	100 c.				x
Beryllium/Radium 226...	1 c....	x			
Beryllium/Polonium 210	100 mc.	x			

TUBERCULOSIS

NOTIFICATIONS—AGE GROUPS 1964

Age	Male	Female	Total
—1	—	1	1
1	2	3	5
2	5	—	5
3	2	1	3
4	1	4	5
5- 9	4	4	8
10-14	4	6	10
15-19	11	5	16
20-24	9	14	23
25-29	17	11	28
30-34	9	14	23
35-39	11	5	16
40-44	15	8	23
45-49	15	7	22
50-54	18	10	28
55-59	15	7	22
60-64	19	4	23
65-69	13	1	14
70-74	11	6	17
76-79	4	1	5
80+	3	1	4
	188	113	301

NOTIFICATIONS OF TUBERCULOSIS—1928-1964

Year	Children (0-4 years)		Schoolchildren (5-14 years)		Adolescents & Adults (15+ years)	
	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary
1928	93	159	407	244	1968	242
1929	106	164	425	238	1975	269
1930	98	178	470	256	1890	263
1931	88	163	365	267	1805	289
1932	71	125	277	279	1757	268
1933	77	138	262	266	1941	250
1934	56	107	223	234	1624	244
1935	36	93	167	178	1494	231
1936	36	85	185	165	1424	197
1937	30	77	128	159	1397	172
1938	43	82	117	118	1281	186
1939	24	64	72	78	1117	175
1940	26	59	51	67	1234	148
1941	33	68	44	79	1225	158
1942	32	63	54	84	1284	201
1943	47	60	64	107	1368	168
1944	29	45	68	58	1344	147
1945	35	45	60	70	1360	133
1946	35	40	63	72	1380	125
1947	50	37	88	69	1341	128
1948	51	49	79	49	1490	130
1949	63	41	77	63	1479	107
1950	106	32	113	41	1353	91
1951	106	26	101	47	1328	87
1952	90	37	161	35	1318	67
1953	77	18	130	27	1175	78
1954	46	22	114	28	975	97
1955	46	24	82	23	951	71
1956	34	9	88	13	938	81
1957	46	9	79	12	892	80
1958	47	17	61	11	686	48
1959	29	12	54	6	1550	30
1960	17	3	24	5	398	36
1961	19	6	26	6	360	42
1962	24	3	23	2	391	45
1963	35	3	37	2	319	38
1964	16	3	17	2	240	23

Year	Pre-School Children (0-4 Years)			School Children (5-14 Years)			Adolescents & Adults (15+ Years)			Total for all Ages		
	Pulmonary	Non- Pulmonary	Total	Pulmonary	Non- Pulmonary	Total	Pulmonary	Non- Pulmonary	Total	Pulmonary	Non- Pulmonary	Total
1928	27	68	95	37	41	78	957	69	1,026	1,021	178	1,199
1929	27	84	111	40	57	97	991	75	1,066	1,058	216	1,274
1930	91	7	98	45	35	80	983	69	1,052	1,049	181	1,230
1931	12	73	85	21	30	51	956	61	1,017	989	164	1,153
1932	14	67	81	21	34	55	934	69	1,003	969	170	1,139
1933	6	50	56	31	33	64	972	65	1,037	1,009	148	1,157
1934	13	49	62	16	24	40	838	56	894	867	129	996
1935	5	43	48	17	20	37	790	60	850	812	123	935
1936	9	48	57	14	25	39	690	53	743	713	126	839
1937	9	43	52	11	20	31	664	49	713	684	112	796
1938	6	45	51	11	11	22	649	47	696	666	103	769
1939	5	29	34	11	22	33	631	48	679	647	99	746
1940	7	45	52	12	22	34	742	55	797	761	122	883
1941	20	63	83	8	29	37	671	55	726	699	147	846
1942	10	45	55	11	21	32	632	58	690	653	124	777
1943	14	33	47	9	17	26	647	53	700	670	103	773
1944	12	32	44	7	12	19	578	38	616	597	82	679
1945	9	32	41	9	21	30	587	43	630	605	96	701
1946	4	29	33	4	20	24	571	29	600	579	78	657
1947	15	27	42	5	18	23	579	40	619	599	85	684
1948	8	33	41	4	16	20	618	36	654	630	85	715
1949	3	22	25	4	13	17	535	33	568	542	68	610
1950	3	24	27	2	8	10	476	32	508	481	64	545
1951	5	19	24	2	5	7	399	19	418	406	43	449
1952	1	13	14	—	4	4	268	19	287	269	36	305
1953	1	17	18	1	2	3	256	17	273	258	26	284
1954	1	4	5	—	2	2	231	6	237	232	12	244
1955	—	5	5	2	2	4	183	12	195	185	19	204
1956	2	1	3	—	—	—	135	6	141	137	7	144
1957	—	1	1	—	1	1	123	3	126	123	5	128
1958	—	1	1	1	1	2	108	5	113	109	7	116
1959	—	2	2	—	—	—	102	1	103	102	3	105
1960	—	—	—	—	—	—	81	3	84	81	3	84
1961	—	1	1	—	—	—	80	5	85	80	6	86
1962	—	—	—	—	2	2	74	5	79	74	7	81
1963	—	1	1	—	1	1	54	2	56	54	4	58
1964	—	—	—	—	—	—	—	38	38	38	3	41

TUBERCULOSIS CASES ON REGISTERS OF CHEST CLINICS—1964

Number of persons examined for the first time	4,968	Number found to be free of disease ...	3,464
Number found to be definitely tuberculous as detailed in 'A' below	362	Number found to be suffering from other conditions	1,136

DIAGNOSIS	RESPIRATORY			NON-RESPIRATORY			TOTAL			GRAND TOTAL
	Adults		Children	Adults		Children	Adults		Children	
	M.	F.		M.	F.		M.	F.		
A.—NEW CASES examined during the year 	189	102	34	17	14	6	206	116	40	362
B.—CONTACTS examined during the year:										
(a) Definitely tuberculous ...	2	4	10	—	—	—	2	4	10	16
(b) Diagnosis not completed	3	5	10	—	—	—	3	5	10	18
(c) Non-tuberculous ...	307	548	1,351	—	—	—	307	548	1,351	2,206
C.—CASES written off the Register as Recovered 	464	424	53	16	13	10	480	437	63	980
D.—NUMBER OF CASES on Register on 31st December 1964:										
(a) Definitely tuberculous ...	2,258	1,721	237	92	155	35	2,350	1,876	272	4,498
(b) Diagnosis not completed	2	1	—	—	—	—	—	—	—	—

Number of attendances of patients at the Chest Clinics	22,391	Number of patients under medical treatment at home on 31st December, 1964	760
Number of visits paid by the Tuberculosis Medical Officer to the homes of patients	248	Total number of visits paid to the homes of patients by Tuberculosis Visitors	24,768
Total number of cases vaccinated with B.C.G.:		*Includes newly born babies in Maternity Wards in Sefton General Hospital, Walton General, Mill Road and Liverpool Maternity Hospitals.	
Children	2,076		
Others*	240		

B.C.G. VACCINATION SCHOOL CHILDREN—1964

Number of children offered B.C.G. vaccination	...	...	...	...	...	...	...	11,133
Number of acceptors	...	...	...	...	...	...	...	9,272
Number Heaf-tested	...	...	...	...	...	...	...	8,456
Number of positive Heaf tests	...	...	...	...	...	...	...	1,309
(Also 325 who had previously had B.C.G. at a clinic or who had a family history of Tuberculosis)								
Number of children vaccinated with B.C.G.	...	...	...	...	...	...	...	7,139

The undermentioned figures relate to students at Teacher Training Colleges:—

Number Heaf-tested	...	...	...	...	...	...	...	19
Number of positive Heaf tests	...	...	...	...	...	...	...	13
Number of students vaccinated with B.C.G.	...	...	...	...	...	...	...	6

B.C.G. VACCINATION OF SCHOOL CHILDREN, HEAF TESTS—1956–1964

Year	Number Tested	Number Positive	Percentage of Number Tested Found Positive
1956	8,921	2,494	28.0
1957	7,224	1,581	21.9
1958	8,587	1,717	20.0
1959	11,313	1,810	16.0
1960	10,569	1,480	14.0
1961	11,542	1,442	12.5
1962	9,777	1,305	13.3
1963	9,247	1,373	14.8
1964	8,456	1,309	15.5

MENTAL HEALTH SERVICE

REFERRALS—1964

Sources of Reference	No. of Persons
General Practitioners	604
Hospitals—	
Inpatients on discharge	1,229
After Out-Patient or Day Treatment	83
Casualty and Reception Wards	301
Section 25 or 26 action after admission	181
Reports requested	97
Education Department (Mentally Subnormal Children or School Leavers)	229
Police and Courts	58
Relatives, Patients, Public Bodies, etc.	340
Patients already receiving Community Care, referred for hospital admission	195
Total	3,317

ACTION TAKEN IN ABOVE CASES

Action Taken	No. of Persons
Admitted to Hospital—	
Mental Health Act, Section 29 (Emergency)	959
Mental Health Act, Section 25 (Observation)	64
Mental Health Act, Section 26 (Treatment)	13
Mental Health Act, Section 60 (Court)	37
Mental Health Act, Informally*	204
Action taken after admission to hospital—	
Section 25 and 26 applications made	181
Reports made on home circumstances	97
Placed on Community Care list (including 1,196 Psychiatric Hospital discharges)	1,677
No further action necessary	85
Total	3,317

*This number represents only a proportion of total informal admissions; in many cases the Mental Health Service was not involved in admission

ADMISSIONS TO HOSPITALS FOR THE MENTALLY SUBNORMAL—1964

Hospitals	Informal	Under Mental Health Act		Total
		Section 26	Section 60 Court Action	
Liverpool Regional Hospital Board—				
Greaves Hall	17	1	6	24
Newchurch	1	—	—	1
Thingwall Hall	3	—	—	3
Olive Mount	1	—	—	1
Rathbone	4	—	—	4
The Manor	1	—	—	1
Manchester Regional Hospital Board—				
Brockhall	4	3	3	10
Crow Wood	1	—	—	1
Special Hospitals—				
Rampton	—	—	1	1
Totals ...	32	4	10	46

WAITING LIST FOR HOSPITAL CARE—1964

Mentally subnormal persons on waiting list for hospital care at 31st December, 1964 : 61, comprising:—

Urgency 3 (highest)	...	...	44
Urgency 2	...	...	5
Urgency 1	...	...	4
Urgency 0	...	...	8

These figures can be classified as follows :—

(a) In Age and Sex Groups

Urgency	Under 6		6—15		16 and over		TOTAL
	Male	Female	Male	Female	Male	Female	
3	4	2	4	7	14	13	44
2	—	1	—	—	3	1	5
1	—	—	1	—	1	2	4
0	1	1	—	3	1	2	8
TOTALS ...	5	4	5	10	19	18	61

(b) Time on Waiting List

Urgency	Over 3 years	2—3 years	1—2 years	6 mths—1 year	Under 6 months	Total
3	6	1	13	11	13	44
2	—	—	1	—	4	5
1	2	1	1	—	—	4
0	3	1	—	3	1	8
TOTALS ...	11	3	15	14	18	61

TRAINING AND OCCUPATION OF MENTALLY DISORDERED PEOPLE—1964

1. *Day centres for the Mentally Subnormal administered by Health Department:—*

FOR CHILDREN			FOR ADULTS		
	Places	No. at 31.12.64		Places	No. at 31.12.64
Training Centres—			Training Centre—		
Princes Road ...	80	80	New Hall (Hawthorn) ...	60	55
Dovecot	60	54			
Garston	60	52	Workshops—		
New Hall (Cherry Tree)	60	50	New Hall	180	181
New Hall (Laburnum) ...	60	57			
	320	293		240	236

2. *Day Special Care Unit for Mentally Subnormal Children administered by Voluntary Society.*

Dorothy Keeling Unit 30 places
(Grant of half daily *per capita* cost made by Corporation.)

3. *Centre for the Mentally Ill (Occupational Therapy and Social) administered by Health Department.*

Johnson Street Centre 25 places

4. *Home Training by Health Department Occupational Therapists.*

Number under training at 31.12.64 7

AMBULANCE SERVICE

INFECTIOUS PATIENTS—1964

Month				Admission	Hospital to Hospital Transfers	Total	TYPE	
							Sitting Cases	Ambulance Cases
January	...	...		113	22	135	97	38
February	...	...		179	8	187	102	85
March	...	...	...	202	12	214	136	78
April	...	...	...	172	17	189	150	39
May	...	...	...	184	19	203	164	39
June	...	...	...	229	20	249	203	46
July	...	...	...	212	18	230	196	34
August	...	...	...	171	12	183	141	42
September	...	...		201	16	217	164	53
October	...	...	...	210	10	220	186	34
November	...	...		172	11	183	144	39
December	...	...		152	10	162	127	35
Total ...				2,197	175	2,372	1,810	562

COMPARATIVE STATISTICS FOR 1963-64

					1963	1964
Diesel Ambulances ...	...	...	...	...	24.6 m.p.g.	25.0 m.p.g.
Petrol Ambulances ...	...	...	...	...	14.6 m.p.g.	15.8 m.p.g.
Dual-Purpose Ambulances...	...	...	...	...	16.1 m.p.g.	16.8 m.p.g.
Sitting-case Ambulances	...	...	...	...	23.4 m.p.g.	22.0 m.p.g.
Vehicle Mileage	...	...	...	...	1,028,204	1,030,802
Fuel—Diesel	...	...	...	...	12,388 gallons	11,895 gallons
—Petrol	...	...	...	...	45,096 gallons	43,716 gallons
Oil	...	...	...	...	952 gallons	912 gallons

Average mileage for the fleet was as follows:—

Type of Vehicle	Average Annual Mileage		Percentage increase/ decrease on 1963
	1963	1964	
Ambulances Petrol ...	13,594	18,262	+ 34.3%
Diesel... ..	13,831	13,525	— 2.2%
Sitting-case Ambulances ...	14,212	16,581	+ 16.7%
Sitting-case Cars	13,753	10,229	— 25.6%

Fuel Consumption

Stretcher case ambulances ...	Petrol	15.8 miles per gallon		
	Diesel	25.0	„	„
Sitting-case ambulances ...	Petrol	16.8	„	„
	Petrol	22.0	„	„

PATIENT REMOVALS—1964

NUMBER OF PERSONS CARRIED	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Non-infectious—													
Out-patients ...	18,128	16,765	16,441	18,437	17,326	17,914	18,074	15,994	17,260	17,228	16,183	15,891	205,641
Hospital Admissions/ Discharges ...	3,136	2,857	3,112	3,041	2,838	2,838	2,857	2,658	2,704	2,987	3,258	3,470	35,756
Inter-hospital transfers	700	672	710	757	681	696	678	623	650	697	635	578	8,077
Infectious—													
Out-patients ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Hospital Admissions/ Discharges ...	113	179	202	172	184	229	212	171	201	210	172	152	2,197
Inter-hospital transfers	22	8	12	17	19	20	18	12	16	10	11	10	175
Accident/Emergency ...	1,850	1,615	1,903	1,795	1,989	2,025	2,058	2,004	1,959	1,918	1,799	2,062	22,977
Other Persons ...	9	8	16	21	24	174	31	16	18	14	9	40	380
	23,958	22,104	22,396	24,240	23,061	23,896	23,928	21,478	22,808	22,064	22,067	22,203	275,203

WELFARE SERVICE

PARTICULARS OF PERSONS ADMITTED TO RESIDENTIAL ACCOMMODATION AND DESCRIPTION OF THE PREMISES FROM WHICH THEY WERE ADMITTED—1964

	1	2	3	4	5	6	
1964	Vacated Private House	Vacated Corpora- tion House	Vacated Flat	Living with Relatives	Living in One Room	Miscellaneous Lodgings, Residential Accommo- dation, etc.	Total
January ...	8	3	2	5	—	35	53
February ...	2	—	2	1	—	17	22
March ...	13	1	1	4	1	19	39
April ...	12	4	1	8	—	26	51
May ...	11	2	4	8	2	18	45
June ...	16	1	2	15	1	17	52
July ...	20	1	7	34	—	20	82
August ...	21	10	5	23	2	14	75
September ...	11	3	7	28	—	15	64
October ...	10	4	4	12	—	15	45
November ...	15	11	2	15	3	16	62
December ...	8	7	3	9	1	24	52
Totals ...	147	47	40	162	10	236	642

RESIDENTIAL ACCOMMODATION—AGED PERSONS

The total accommodation available for use on 31st December, 1964, was as follows:—

Establishment					No. of Beds	Date of Opening
Westminster House	...	...	...	...	530	5. 7.1948*
Aigburth House	...	...	...	...	52	16. 7.1953
Altcross House	...	...	...	...	53	11. 4.1957
Beechley	...	...	...	...	38	9.11.1950
Brookfield	...	...	...	...	33	21. 1.1952
Brookside House	...	...	...	...	40	5. 3.1957
Cavendish House	...	...	...	...	59	23. 9.1963
Croxteth Lodge	...	...	...	...	30	17.12.1956
Holt House	...	...	...	...	58	24. 9.1953
Lathbury House	...	...	...	...	52	30.11.1964
Lismore	...	...	...	...	36	10.12.1951
Melwood House	...	...	...	...	56	18. 2.1963
Moreno House	...	...	...	...	32	14. 1.1949
New Grafton House	...	...	...	...	109	5. 7.1948*
New Parkfield House	...	...	...	...	27	18.12.1950
Park House	...	...	...	...	20	30.12.1949
Ullet Grange	...	...	...	...	29	13.11.1957
Westdene	...	...	...	...	48	16. 3.1962
Total					1,301	

* In occupation by the Local Authority prior to 5th July, 1948.

TEMPORARY ACCOMMODATION PROVIDED AT LOWER BRECK ROAD
UNDER SECTION 21(1)(b) OF THE NATIONAL ASSISTANCE ACT.

Remaining 31.12.63	Admitted	Discharged	Remaining 31.12.64
106	994	1,034	66

REGISTERED BLIND PERSONS

Age Groups	Number on Register			New Cases—1964		
	Males	Females	Total	Males	Females	Total
0	—	—	—	—	—	—
1	1	1	1	1	—	1
2	—	2	2	—	1	1
3	1	—	1	1	—	1
4	—	1	1	—	—	—
5-10	11	6	17	1	—	1
11-15	10	17	27	—	—	—
16-20	16	4	20	2	1	3
21-29	13	22	35	—	4	4
30-39	51	28	79	2	1	3
40-49	65	55	120	4	2	6
50-59	96	92	188	1	7	8
60-64	48	66	144	5	5	10
65-69	69	84	153	4	10	14
70-79	128	240	368	18	29	47
80-84	47	145	192	10	24	34
85-89	35	84	119	4	12	16
90+	8	30	38	1	4	5
Totals	599	876	1,475	54	100	154

PARTIALLY-SIGHTED PERSONS

Age Groups	Number on Register			New Cases—1964		
	Males	Females	Total	Males	Females	Total
0- 1	—	—	—	—	—	—
2- 4	1	—	1	1	1	2
5-15	47	21	68	5	2	7
16-20	15	13	28	—	1	1
21-49	34	23	57	4	3	7
50-64	32	16	48	3	3	6
65+	38	116	154	6	20	26
Totals	167	189	356	19	30	49

FOLLOW-UP OF REGISTERED BLIND AND PARTIALLY-SIGHTED PERSONS—1964

(i) Number of cases registered during the year in respect of which Section F of Form B.D.8 recommends :—	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Other
(a) No treatment	21	4	—	46
(b) Treatment (medical, surgical or optical) ...	37	20	—	74
(ii) Number of cases at (i) (b) above which on follow-up action have received treatment	12	18	—	58

MEDICAL EXAMINATIONS—1964

Department	Admission to Super-annuation Scheme		Extension of Sick pay		Fitness of newly appointed officer		Suitability to Continue employment		Total
	Fit	Unfit	Fit	Unfit	Fit	Unfit	Fit	Unfit	
Airport	1	—	—	—	8	—	—	—	9
Art Gallery	4	—	—	—	4	—	—	—	8
Baths	29	—	—	—	2	—	2	—	33
Building Surveyors	—	—	—	—	5	—	—	—	5
Children's	1	—	2	—	67	2	8	3	83
City Analyst	—	—	—	—	—	—	—	—	—
City Architect's	11	1	3	—	17	—	11	1	44
City Engineer's	208	3	110	29	55	—	21	12	438
City Estates	18	2	12	1	25	—	—	3	61
City Lighting	29	—	1	—	3	—	5	8	46
City Planning	—	—	—	—	12	—	1	—	13
City Treasury	1	—	1	—	96	3	—	2	103
Education	88	8	4	1	366	—	18	50	535
Fire Service	2	—	—	—	22	—	—	—	24
Health... ..	109	3	13	1	259	1	44	21	451
Housing	—	—	—	—	53	—	1	—	54
Libraries	4	1	2	—	46	—	1	—	54
Magistrates	—	—	—	—	12	—	1	—	13
Markets	12	—	1	—	2	—	4	1	20
Mersey Tunnel	1	—	1	1	77	—	1	—	81
Museums	3	—	—	—	7	—	1	1	12
Parks & Gardens	70	2	2	—	27	—	6	6	113
Passenger Transport	420	3	3	—	30	—	5	26	487
Police	12	—	—	—	30	—	1	3	46
Probation	—	—	—	—	13	—	—	—	13
Town Clerk's	—	—	2	—	33	—	2	2	39
Water	37	1	12	1	15	—	4	2	72
Weights & Measures	—	—	—	—	4	—	—	—	4
Works	133	1	16	1	23	—	25	7	206
TOTAL	1,193	25	185	35	1,313	6	162	148	3,067

Total Fit 2,853

Cancelled 281

Total Unfit 214

Other Authorities 56

HOUSING POINTS SCHEME—1964

Category	Number Allocated	Number Recommended	Number Rehoused
Special Priority Transfers	<i>General Medical Cases</i>		
	90	126	90
	125	232	90
Special Priority Transfers	<i>Tuberculosis</i>		
	90	200	128
	125	228	89

ENVIRONMENTAL HEALTH CONTROL

PARTICULARS OF SHOPS INSPECTIONS—1964

Total number of Shops—14,000 (approx.)

Retail Food Shops ...	...	...	...	...	...	3,705
Retail Non-Food Shops ...	...	...	...	...	...	512
Cafes, Restaurants, etc. ...	...	...	...	...	...	363
Fried Fish Shops ...	...	...	...	...	...	53
Clubs ...	...	...	...	...	...	415
Hairdressers ...	...	...	...	...	...	42
Pet Stores ...	...	...	...	...	...	89
Wholesale Shops ...	...	...	...	...	...	7,092
Wholesale Warehouses ...	...	...	...	...	...	416
Street Traders ...	...	...	...	...	...	117
Places of Entertainment ...	...	...	...	...	...	27
Merchandise Marks Act ...	...	...	...	...	...	1,136
Special Visits ...	...	...	...	...	...	259
Half-holiday Closing—						
Visits to shops after 1 p.m. ...	...	...	...	...	...	716
Evening closing—						
Visits to Shops ...	...	...	...	...	...	2,736
Sunday Closing—						
Visits to Shops on Sunday ...	...	...	...	...	...	240

Notices

Shops' Act, 1950 ...	...	...	...	...	...	12
Food Hygiene Regulations ...	...	...	...	...	...	125
Clubs ...	...	...	...	...	...	40

RETAIL FOOD BUSINESSES—1964

Licensed premises ...	...	...	...	...	...	...	1,043
Off-licence premises ...	...	...	...	...	...	...	167
Ice cream vendors... ...	...	...	...	...	...	...	1,930
Bread and confectionery ...	...	...	...	...	...	...	410
Butchers and cooked meats ...	...	...	...	...	...	...	795
Cafes, snack bars, etc. ...	...	...	...	...	...	...	400
Dairies (Registered) ...	...	...	...	...	...	...	723
Fishmongers and poulterers ...	...	...	...	...	...	...	200
General ...	...	...	...	...	...	...	1,170
Greengrocers ...	...	...	...	...	...	...	875
Grocery and provisions ...	...	...	...	...	...	...	950
Sweets, minerals, etc. ...	...	...	...	...	...	...	1,285
Fish frying establishments ...	...	...	...	...	...	...	485

SUMMARY OF PROSECUTIONS (CASES HEARD)—1964

Act	Section	No. of Informations or Complaints	Penalties	Costs
Public Health Act, 1936	94	3	£ s. d. — — —	£ s. d. — — —
Public Health Act, 1936	75	1	10 0	— — —
SHOPS ACT AND FOOD AND DRUGS ACT, REGULATIONS AND BYELAWS				
Shops Act, 1950	Half-holiday closing	1	1 0 0	— — —
Shops Act, 1950	Evening closing	2	3 0 0	— — —
Food and Drugs Act, 1955	Selling milk with added water	5	25 0 0	7 10 0
Food and Drugs Act, 1955	Food not of quality demanded	10	80 0 0	32 0 0
Food Hygiene (Gen) Regulations, 1960		15	42 0 0	— — —
Food Byelaws		—	— — —	— — —
		37	£151 10 0	£39 10 0

FACTORIES ACT, 1961
 PART I OF THE ACT

1. *INSPECTIONS for purposes of provisions as to health (including inspection made by the Public Health Inspectors—1964)*

Premises (1)	Number on Register (2)	Number of		
		Inspection (3)	Written Notices (4)	Occupiers prosecuted (5)
(i) Factories in which Sections 1, 2, 3, 4, and 6 are to be enforced by local authorities ...	757	283	2	—
(ii) Factories not included in (i) in which Section 7 is enforced by local authority	2,259	853	10	—
(iii) Other premises in which Section 7 is enforced by the local authority (excluding outworkers premises)	31	19	1	—
TOTAL	3,047	1,155	13	—

2. *Cases in which DEFECTS were Found—1964*

Particulars (1)	Number of Cases in which Defects were found				Number of Cases in which Prosecu- tions were instituted (6)
	Found (2)	Remedied (3)	To H.M. Inspector (4)	By H.M. Inspector (5)	
Want of cleanliness (S.1) ...	4	4	1	1	—
Overcrowding (S.2)	1	1	1	—	—
Unreasonable temperature (S.3)	1	1	1	—	—
Inadequate ventilation (S.4) ...	—	—	—	—	—
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary Conveniences (S.7)—					
(a) Insufficient	1	1	—	1	—
(b) Unsuitable or defective ...	17	16	—	6	—
(c) Not separate for sexes ...	2	2	—	—	—
Other offences against the Act (not including offences re- lating to outwork)	21	21	—	1	—
TOTAL	47	46	3	9	—

Nature of Work (1)	SECTION 133			SECTION 134		
	No. of out- workers in August list required by Section 133 (1) (c) (2)	No. of cases of default in sending lists to the Council (3)	No. of prosecu- tions for failure to supply lists (4)	No. of instances of work in unwhole- some premises (5)	Notices served (6)	Prosecu- tions (7)
Wearing apparel— making, etc.	137	—	—	—	—	—
Stuffed toys ...	14	—	—	—	—	—
Christmas stockings	51	—	—	—	—	—
TOTAL ...	202	—	—	—	—	—

CLEARANCE AREAS NOT YET CONFIRMED BY THE MINISTER AT 31ST DECEMBER, 1964

Area	Houses	Population
Aigburth Vale Clearance Area, 1962 ...	144	418
Portwood Street Clearance Area, 1962 ...	91	331
Everton Road Clearance Area, 1963 ...	5	29
Gleave Street Clearance Area, 1963 ...	157	561
Margaret Street Clearance Area, 1963 ...	7	36
Mill Road No. 4 Clearance Area 1963 ...	5	21
York Terrace No. 1 Clearance Area, 1963 ...	59	258
York Terrace No. 2 Clearance Area, 1963 ...	25	124
Chatsworth Street Clearance Area, 1963 ...	378	1,249
Carlisle Street Clearance Area, 1963 ...	6	19
Smithdown Lane No. 1 Clearance Area, 1963 ...	32	101
Smithdown Lane No. 2 Clearance Area, 1963 ...	5	19
Tunnel Road No. 1 Clearance Area, 1963 ...	24	82
Tunnel Road No. 2 Clearance Area, 1963 ...	11	35
Tunnel Road No. 3 Clearance Area, 1963 ...	3	17
Woodruff Street No. 2 Clearance Area, 1963 ...	100	388
Cochrane Street No. 1 Clearance Area, 1963 ...	203	646
Cochrane Street No. 2 Clearance Area, 1963 ...	29	120
Falkner Street No. 2 Clearance Area, 1963 ...	162	956
Falkner Street No. 3 Clearance Area, 1963 ...	452	2,664
Falkner Street No. 4 Clearance Area, 1963 ...	2	14
Falkner Street No. 5 Clearance Area, 1963 ...	3	30
Falkner Street No. 6 Clearance Area, 1963 ...	29	200
Bamber Street No. 1 Clearance Area, 1963 ...	66	284
Bamber Street No. 2 Clearance Area, 1963 ...	149	662
Bamber Street No. 3 Clearance Area, 1963 ...	4	44
Bamber Street No. 4 Clearance Area, 1963 ...	2	8
Bamber Street No. 5 Clearance Area, 1963 ...	3	13
Taylor Street No. 1 Clearance Area, 1963 ...	181	762
Taylor Street No. 2 Clearance Area, 1963 ...	3	7
Taylor Street No. 3 Clearance Area, 1963 ...	21	77
Chatsworth Street No. 2 Clearance Area, 1964 ...	285	1,025
Chatsworth Street No. 3 Clearance Area, 1964 ...	425	1,618
Chatsworth Street No. 4 Clearance Area, 1964 ...	17	46
Overbury Street Clearance Area, 1964 ...	206	809

CLEARANCE AREAS NOT YET CONFIRMED BY THE MINISTER AT 31ST, DECEMBER 1964

Continued

Sackville Street No. 1 Clearance Area, 1964	...	...	...	50	258
Sackville Street No. 2 Clearance Area, 1964	...	...	...	29	109
Vine Street No. 1 Clearance Area, 1964	...	...	...	48	233
Vine Street No. 2 Clearance Area, 1964	...	...	...	21	141
Bedford Street South No. 1 Clearance Area, 1964	...	...	...	53	178
Bedford Street South No. 2 Clearance Area, 1964	...	...	...	9	41
Milford Street Clearance Area, 1964	...	...	...	54	251
Great Howard Street No. 8 Clearance Area, 1964	...	...	...	6	48
Great Howard Street No. 9 Clearance Area, 1964	...	...	...	13	54
Blackstone Street No. 1 Clearance Area, 1964	...	...	...	12	47
Blackstone Street No. 2 Clearance Area, 1964	...	...	...	4	21
Queens Road (Everton) Clearance Area, 1964	...	...	...	783	3,174
Caird Street (Everton) Clearance Area, 1964	...	...	...	299	1,062
Margaret Street (Everton) No. 2 Clearance Area, 1964	...	...	...	5	25
Margaret Street (Everton) No. 3 Clearance Area, 1964	...	...	...	3	7
Margaret Street (Everton) No. 4 Clearance Area, 1964	...	...	...	5	28
Aubrey Street (Everton) No. 1 Clearance Area, 1964	...	...	...	330	963
Aubrey Street (Everton) No. 2 Clearance Area, 1964	...	...	...	166	658
Phythian Street No. 1 Clearance Area, 1964	...	...	...	527	1,963
Phythian Street No. 2 Clearance Area, 1964	...	...	...	9	26
Phythian Street No. 3 Clearance Area, 1964	...	...	...	16	44
Phythian Street No. 4 Clearance Area, 1964	...	...	...	12	43
Phythian Street No. 5 Clearance Area, 1964	...	...	...	58	189
Phythian Street No. 6 Clearance Area, 1964	...	...	...	48	159
Phythian Street No. 7 Clearance Area, 1964	...	...	...	3	13
Phythian Street No. 8 Clearance Area, 1964	...	...	...	5	26
Totals	...	...	...	5,862	23,434

COMPULSORY PURCHASE ORDERS CONFIRMED—1964

Date Confirmed	Order	Houses	Population
2.1.64	Greenwood Street Area Compulsory Purchase Order... ..	198	712
28.1.64	Rose Vale No. 4 Clearance Area Compulsory Purchase Order	4	33
19.2.64	Edinburgh Street Clearance Area Compulsory Purchase Order	409	1,596
11.5.64	Kepler Street Area Compulsory Purchase Order	358	1,291
21.5.64	Gordon Street Clearance Area Compulsory Purchase Order	142	666
24.6.64	Newlands Street Area Compulsory Purchase Order	224	882
26.8.64	Dale View (Garston) Area Compulsory Purchase Order... ..	66	231
10.11.64	Great Mersey Street No. 2 Clearance Area Compulsory Purchase Order	51	315
19.11.64	Seacombe Street Clearance Area Compulsory Purchase Order	330	1,287
	Totals	1,782	7,013

CLEAN AIR ACT, 1956

INSPECTIONS, OBSERVATIONS, ETC.

Particulars of Inspections—1964

Total Number of Inspections to Secure Smoke Control	...	...	...	...	...	...	...	...	24,784
Incidental Visits	...	...	...	...	...	...	...	...	8,471
Special Visits	...	...	...	...	...	...	...	...	12,703
Re-Visits	...	...	...	...	...	...	...	...	5,412
Advisory Visits	...	...	...	...	...	...	...	...	9,437
Total Number of Appliances Examined	...	...	...	...	...	...	...	...	9,492

OBSERVATIONS

Industrial Chimneys

Routine Observations	...	...	...	...	...	...	...	...	296
Special Observations	...	...	...	...	...	...	...	...	61
Total Minutes of Excess Smoke Recorded	...	...	...	...	...	...	...	...	45

SHIPPING

Routine Observations	...	...	...	...	...	...	...	...	81
Total Minutes of Excess Smoke Recorded	...	...	...	...	...	...	...	...	13

CLEAN AIR ACT, 1956 SECTION 3

Approval of New Furnaces, 1964

Notices of intentions to instal received	...	...	...	...	...	...	...	190
Application for approval received	...	...	...	...	...	...	...	69
Installations approved	...	...	...	...	...	...	...	69

CLEAN AIR ACT, 1956 SECTION 10

Heights of New Chimneys, 1964

Plans examined to check chimney height	...	...	...	...	...	...	...	118
Plans approved	...	...	...	...	...	...	...	111
Plans approved after chimney height increased	...	...	...	...	...	...	...	4
Plans withdrawn	...	...	...	...	...	...	...	3

ATMOSPHERIC POLLUTION MEASUREMENT—1964

Standard Deposit Gauge

The results are quoted in tons per square mile per month and the averages are as follows :—

Location of Instrument										Tons per Square Mile
Aigburth Vale	...	...	...	...	...	...	...	...	...	8·55
Hatton Garden	...	...	...	..	...	...	...	...	...	17·78
Clarence Dock	...	...	...	...	...	...	...	...	...	18·817
Love Lane	...	...	...	...	...	...	...	...	...	20·03
Mill Lane (West Derby)	...	...	...	...	...	...	...	...	...	13·49
Fairclough Lane	...	...	...	...	...	...	...	...	...	14·68
Dunbabin Road...	...	...	...	...	...	...	...	...	...	10·41
Rocky Lane (Childwall)	...	...	...	...	...	...	...	...	...	12·99

ESTIMATION OF SULPHUR TRIOXIDE POLLUTION—1964

Lead Peroxide Method

The daily average for the year is quoted in milligrams per 100 square centimetres.

Clarence Dock	...	...	...	...	...	...	...	...	3·32
Dunbabin Road...	...	...	...	...	...	...	...	...	2·39
Fairclough Lane	...	...	...	...	...	...	...	...	3·06
Mill Lane (West Derby)	...	...	...	...	...	...	...	...	2·40

Smoke and Sulphur Dioxide Volumetric Filter
Measurements are in microgrammes per cubic meter

	SMOKE												SULPHUR												
	J.	F.	M.	A.	My.	Jn.	Jy.	A.	S.	O.	N.	D.	J.	F.	M.	A.	My.	Jn.	Jy.	A.	S.	O.	N.	D.	
													HATTON GARDEN												
Average Value	...	368	205	264	144	74	79	66	68	92	182	203	281	607	429	558	393	286	287	285	266	310	550	595	643
Highest Value	...	1,328	376	360	284	110	195	180	135	218	382	466	866	1,808	789	844	564	483	495	476	565	590	888	1,216	1,404
Lowest Value	...	96	72	52	48	30	39	38	44	34	51	44	58	273	218	421	264	187	165	168	184	166	338	168	108
													CROXTETH												
Average Value	...	244	135	122	76	43	39	40	38	69	138	145	—	312	216	236	190	136	160	156	141	174	199	221	—
Highest Value	...	718	374	216	151	71	95	78	90	225	230	261	—	1,060	417	410	343	296	247	286	250	278	330	466	—
Lowest Value	...	93	28	43	39	13	21	17	17	16	50	69	—	162	122	149	125	72	91	113	88	83	119	84	—
													WOOLTON												
Average Value	...	176	121	134	81	49	53	50	49	70	129	134	142	340	262	306	234	186	181	175	160	223	298	303	280
Highest Value	...	528	321	212	181	84	125	129	120	166	247	284	332	729	445	498	379	312	304	403	291	462	477	658	596
Lowest Value	...	78	54	77	23	21	21	21	25	39	58	40	57	32	118	209	164	108	39	80	99	126	148	119	113

ANNUAL TEST BAITING—1964

Test Baiting Divisions	Year 1953	Year 1963	Year 1964
Total number of manholes	6,337	11,798	12,033
Number of manholes tested	797	1,282	1,355
Number of manholes showing takes	68	28	65

RAT DESTRUCTION IN SEWERS—1964

Maintenance Treatments

Sewer Manholes treated	Initial Treatment 1953	MAINTENANCE TREATMENTS		
		1964 (1)	1964 (2)	1964 (3)
Pre-baited... ..	16,378	12,382	12,343	12,299
Pre-bait taken	9,329	1,836	1,620	2,062
Poison baited	11,141	3,900	3,664	4,637

188 SUMMARY OF RODENT INFESTATIONS AND DISINFESTATIONS OF BUILDINGS AND LANDS DURING THE YEAR 1964

Description of Premises	Infestations				Reinfestations during the Year				Category		Total infestations and reinfestations	Total remedied
	Premises	Rats	Rats and Mice	Mice	Premises	Rats	Rats and Mice	Mice	Major	Minor		
Shops	621	313	12	296	14	10	—	6	—	637	637	595
Factories	288	164	20	104	15	5	3	9	—	305	305	258
Warehouses	224	165	3	56	13	9	—	5	—	238	238	225
Dwelling-houses	2,762	1,854	1	907	52	27	—	29	—	2,818	2,818	2,492
Other buildings and lands ...	1,212	673	29	510	43	21	4	24	—	1,261	1,261	1,007
Food premises (included in above)...	(800)	(374)	(14)	(412)	(9)	(5)	(1)	(3)	(—)	(809)	(809)	(602)
TOTAL	5,107	3,169	65	1,873	137	72	7	73	—	5,259	5,259	4,577

QUANTITY OF FOOD CONDEMNED FOR DISEASE
OR FOUND UNFIT FOR HUMAN CONSUMPTION—1964

	Tons	Cwts.	Qrs.	Lbs.
Beef, Mutton, Veal and Pork	153	1	1	17
Offal	325	18	3	14
Fish (Wet)	24	8	—	4
Fish (Dry)	—	10	—	—
Poultry	3	1	3	—
Game	—	1	—	5
Rabbits and Hares	—	7	2	11
Fruit	73	—	3	17
Vegetables	91	—	1	21
Nuts	15	1	2	17
Canned Goods	62	11	3	9
Sundries	2	7	1	18
	751	10	3	21

CARCASES AND OFFAL INSPECTED AND
CONDEMNED IN WHOLE OR IN PART—1964

	Cattle Excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed 489,051	32,918	20,874	2,660	316,494	116,105
Number inspected 489,051	32,918	20,874	2,660	316,494	116,105
<i>All diseases except tuberculosis and cysticerci</i>					
Whole carcasses condemned	8	93	242	1,956	315
Carcasses of which some part or organ was condemned	3,661	11,746	818	85,869	9,845
Percentage of the number inspected affected with other than tuberculosis and cysticerci	10.1%	56.7%	39.8%	27.7%	8.8%
<i>Tuberculosis only</i>					
Whole carcasses	—	1	—	—	7
Carcasses of which some part or organ was condemned	60	20	—	—	372
Percentage of the number inspected affected with tuberculosis	0.17%	0.1%	—	—	0.32%
<i>Cysticercosis</i>					
Carcasses of which some part or organ was condemned	13	9	—	7	—
Carcasses submitted to re- frigeration	13	9	—	5	—
Generalised and wholly con- demned	—	—	—	2	—

CITY ANALYST

ANALYSIS OF MILK SAMPLES—1964

					Percentage average fat content	Percentage average content of total solid matter
January	...	...	...	...	3.68	12.21
February	...	...	...	...	3.70	12.35
March	...	...	...	...	3.57	12.23
April	...	...	...	...	3.54	12.26
May	...	...	...	...	3.52	12.48
June	...	...	...	...	3.53	12.32
July	...	...	...	...	3.68	12.45
August	...	...	...	...	3.66	12.36
September	...	...	...	...	3.78	12.64
October	...	...	...	...	3.86	12.76
November	...	...	...	...	4.13	12.99
December	...	...	...	...	3.79	12.53

LIVERPOOL WATER SUPPLY

Average Analyses 1964						
Source of the Sample	Huntington Supply (Treated Water)	Vyrnwy Supply	Rivington Supply	Green Lane Well	Dudlow Lane Well	Tap Supply
Total solid matter in solution	184.9	40.2	95.4	417.5	230.7	136.2
Oxygen required ... 15 minutes to oxidised ... 4 hours	0.41 0.75	0.56 1.03	0.19 0.52	0.05 0.05	none none	0.42 0.81
Ammonia expressed as N	0.51	0.1	0.3	none	none	0.02
Ammonia from Organic matter as N by distillation with alkaline permanganate	0.01	none	0.1	none	none	0.01
Nitrogen as Nitrates	0.8	none	0.2	7.2	7.8	1.1
Combined Chlorine	35.2	10.4	17.5	43.8	34.5	22.2
pH Value	7.6	7.4	7.4	7.1	6.8	7.3
Carbonate hardness	49	10	8	164	25	34
Total hardness	98	16	46	258	109	73